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ORGANIC OR MECHANISTIC?

by

CAPTAIN FRANK K. MIYAGAWA USAF PE

A CAPSTONE PROJECT

Submitted in partial fulfillment of the requirements
for the degree of Engineering Management in
The Department of Engineering
of
The School of Graduate Studies
of
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1998

CAPSTONE APPROVAL FORM

Submitted by Frank K. Miyagawa in partial fulfillment of the requirements for the degree of Master of Engineering Management.

Accepted on behalf of the Faculty of the School of Graduate Studies by the capstone committee:

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_____ Department Chair

_____ College Dean

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ABSTRACT
School of Graduate Studies
The University of Alabama in Huntsville

Degree: Master of Science   **College/Department:** Engineering Management

Name of Candidate: Frank K. Miyagawa

Title: Organic or Mechanistic?

There is virtually an endless amount of books and papers regarding management. Likewise, there is an endless supply of tools that organizations and managers can use to determine how a well or poor an organization is performing. Most of these management tools and theories have been misapplied and misunderstood and therefore are not useful. What organizations and managers need today is a simple tool to evaluate the well being of an organization, as well as identify key target areas for improvement.

This Capstone project provides such a tool. A compilation of existing management tools and theories were brought together and redefined in a simple to use Assessment Instrument. This Assessment Instrument identifies ten different categories to evaluate how an organization is operating. The Assessment Instrument defines each of the ten categories as either organic or mechanistic in nature.

This Capstone project provides the necessary background theory and the Assessment Instrument for organizations to use. This project also provides the initial framework for defining organizations in terms of organic or mechanistic and provides recommendations for the further development of this management tool.

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Chapter 1

THE PROBLEM

A.   **Introduction**

In today's Fad-of-the-Month new management strategies and theories to correct all the problems in an organization, there are very few quick and simple tools for organizations and managers to use to accurately measure the overall well being of an organization and identify areas needing improvement. The few new strategies and tools that are worthy of a manager's time usually target one or two key areas within an organization or are too difficult to use or are not used properly. What managers today need is a tool to quickly and easily determine the overall status of the organization. They need tools to identify weak areas to target for further study and improvement.

B.   **Hypothesis**

For years, managers and corporations have been hiring consultants to identify problem areas in organizations and recommend changes to keep the organizations competitive. Managers, especially technical managers, have not had many useful tools or the necessary background in organizational structure and behavioral theory to adequately identify problem areas. There have been extensive writings discussing the importance of organizational structure and the need to be organic. However, there are no management tools available that take that strategy one step further and look at the entire organization, not just structure, in terms of organic and mechanistic characteristics.

This Capstone project will provide a simple Assessment Instrument for managers to effectively use to gain insight to the problem areas of their organization and the background theory necessary to justify the Assessment Instrument results.

An underlying assumption of this paper is that in today's rapidly changing global economy, any organization wanting to stay competitive in their respective markets needs to be constantly evaluating their organization and making positive changes. Secondly, there is a strong link between organizational structure and human behavioral theory that greatly affects an organization's performance. These organizational and behavior theories can be defined in terms of "organic" and "mechanistic" properties and they are measurable.

The Assessment Instrument described in this Capstone project targets these organizational structure and behavioral theory concepts and provides a framework for measuring an organization in terms of organic and mechanistic. Organic properties in an organization can be assessed and will have a positive score on an objective assessment instrument, while mechanistic properties in an organization will have a negative score on the same objective instrument. Finally, the bottom line is that in order for a technology driven organization to stay competitive, it must be organic.

C.   Definitions

What is organic? Burns and Stalker first used the term organic to define an organizational structure (Burns and Stalker, 1961).

They characterized an organic structure as:

- Little preoccupation with adhering to the chain of command

- A more realistic divisional-type division of work

2

- The shedding of responsibility as a limited field of rights, obligations, and methods (employees do not respond to requests by saying "that's not my job")

- Jobs that are not clearly defined in advance, but are instead continually adjusted and redefined as the situation demands

- More of a network or matrix structure of communication

- Lateral rather than vertical communication with an emphasis on consultation rather than command; communication here generally consists of information and advice rather than instructions and decisions

- A pervasive commitment to the organizations' tasks that motivates employees to maintain self-control as opposed to having performance controlled solely through a system of rewards and penalties, as is often the case in mechanistic organizations.

And, what is mechanistic? Burns and Stalker also defined what a mechanistic structure was. They characterized a mechanistic organization as:

- Close adherence to the chain of command

- A functional division of work, through which the problems and tasks facing the concern as a whole are broken down

- The highly specialized nature of each task

- The use of formal hierarchy for coordination

- Detailed job descriptions that provide a precise definition of rights, obligations, and technical methods for coordination

- A tendency for interaction between employees to be vertical i.e. between supervisor and subordinate

- A tendency for operations and working behavior to be governed by the instructions and decisions issued by superiors

Burns and Stalker were the first to relate organizational structure to the business environment. They looked at businesses that had stable environments, changing environments and innovative environments and determined which types of structure were in use and successful.

It was in these studies that Burns and Stalker used the terms organic and mechanistic to define an organization. They identified that mechanistic structures were designed for stable environments, while the organic structure was better suited for changing and innovative environments.

It is this premise that to be innovative and operate in a changing environment, an organization needs to be organic.

Similarly, Peters and Waterman in the book In Search of Excellence characterized the traditional management approach as rational (Peters and Waterman, 1982). This rational approach to management was cited as one of the problems with management today. All of the companies they found to be excellent did not adopt these rational behaviors.

The Rational Model embodies many of the same characteristics of a mechanistic organization.

Peters and Waterman defined the Rational Model as:

1.   Bigger is better because you can always get economies of scale. When in doubt, consolidate things; eliminate overlap, duplication and waste.

Incidentally, as you get big, make sure everything is carefully and formally coordinated.

2. Low-cost producers are the only sure-fire winners. Customer utility functions lead them to focus on the cost in the final analysis. Survivors always make it cheaper.

3. Analyze everything. We've learned that we can avoid big dumb decisions through good market research, discounted cash flow and good budgeting.

4. Get rid of disturbers of the peace. i.e. fanatical champions. After all, we have a plan and we must follow it.

5. Manager's job is decision-making. Make the right calls. Make the tough calls. Balance the portfolio. Implementation or execution is of secondary importance.

6. Control everything. A manager's job is to keep things tidy and under control. Make black and white decisions. Treat people as factors in production.

7. Get incentives right and productivity will follow. Over reward the top performers. Weed out the 30 to 40 percent dead wood who don't want to work.

8. Inspect to control quality. Quality is like everything else; order it done.

9. Business is a business is a business. If you can read the financial statements you can manage everything. (Air Force Corollary: If you can fly a plane you can manage anything)

10. It's all over if we stop growing. When we run out of opportunities in our industry, buy into industries we don't understand. At least we can continue to grow.

11. Top executives are smarter than the market. Above all, don't let quarterly earnings stop growing.

Peters and Waterman determined that the Rational Model does not:

- Love the customer

- Treat the average Joe as a hero

- Give employees some say so

- Feel that self generated quality control is better than inspecting in quality

- Overspend on quality and customer service

The Rational Model tends to be negative, has a missing product or process perspective (mostly finance officers and lawyers in charge), allows for no experimentation or failure, is analytical from the corporate ivory tower, relies on the home run product and over emphasizes the cost side of the profit equation.

The Rational Model is over analyzing, headed in the wrong direction, too complex to be useful, too concerned with control and stopping actions and allows to become a never ending means unto itself. In a word, mechanistic.

This paper will further expand the definitions of organic and mechanistic to other organizational areas besides organizational structure. These areas include, access to information, communications, reward systems, goal setting, motivation techniques, leadership style, decision making/problem solving, control systems and finally

training/education.   Each one of these areas will be defined in terms of organic and mechanistic.

Also, this paper will explain why organic is a positive attribute and mechanistic is a negative attribute for each of these categories.   Finally, a short, simple to use, and easy to interpret Assessment Instrument will be the end result.

Chapter 2

REVIEW OF THE LITERATURE

A. General Description of Organic and Mechanistic

Organic/Mechanistic

A comprehensive review of literature pertaining to management, engineering management, organizational structure and human behavior theory as it relates to motivation was conducted. There was no other single Assessment Instrument discovered that assessed an overall organization in the ten categories discussed in terms of organic and mechanistic characteristics.

The justification and background theory for selection of the ten categories in the Assessment Instrument is a compilation of information from the literature search as well as coursework from the Engineering Management curriculum at The University of Alabama in Huntsville.

First, the different Schools of Management Thought and how they relate to organic and mechanistic characteristics will be reviewed and then a complete analysis of the ten categories in the Assessment Instrument will follow.

Schools of Management Thought

The six recognized Schools of Management Thought were incorporated into some aspect of the Assessment Instrument. The six schools: Management Process, Empirical,

Human Behavior, Social Systems, Decision Theory and Mathematical, were reviewed for organic and mechanistic characteristics.

However, emphasis was placed specifically on the Human Behavior and Social Systems School of Thought.

Management Process School

The Management Process School, founded by Henry Fayol and often referred to as the traditional school, views management as a process of getting things done through and with people operating in organized groups (Koontz, 1962). The basic approach to this school is to first look at the functions of managers and then classify the analysis around the nature, purpose, structure and process of the function. The school's five functions are Planning, Staffing, Organizing, Leading and Controlling. Each of these functions were incorporated into the Assessment Instrument. This school of management thought is the most commonly used today and most familiar.

For purposes of this paper, the following are definitions for the six functions of management:

- Planning- Actions identified to meet objectives

- Organizing- Structure and interrelationships of employees

- Staffing- Numbers and the types of skills of employees

- Leading- Influencing people in the organizations for the accomplishment of goals

- Controlling- Evaluating and maintaining processes in order to conform to plans and norms to meet goals

These five functions of management were incorporated into numerous aspects of the Assessment Instrument and related to organic and mechanistic characteristics. This school of thought is neutral to slightly mechanistic on the Assessment Instrument.

Empirical School

The Empirical School approach states that by studying the experiences of successful managers, or the mistakes made in management, or by attempting to solve management problems, one can understand and learn to apply the most effective kinds of management techniques (Koontz, 1962). This school moves in the same direction as the Management Process School by drawing generalizations from research.

March and Simon's Empirical School utilizing case studies and experience factors were also used in the justification of the categories in the Assessment Instrument (March and Simon, 1958). Many organizations were studied to determine positive attributes of successful organizations to include as characteristics into the Assessment Instrument.

Human Behavior School

The Human Behavior School concentrates on the people part of management and is based on the principle that people should understand people when working together as groups to accomplish objectives (Koontz, 1962). The Human Behavior aspect of organizational structure and success was used extensively for evaluating an organization in terms of organic and mechanistic attributes. Authors such as Maslow, McGregor, Herzberg, McClelland, and Argyris, were cited in the Assessment Instrument. This area of

management thought was a primary focus of the Assessment Instrument. This school of thought tends to be mostly organic.

Social Systems School

The Social Systems School identifies the nature of the cultural relationships of various groups and attempts to show these as related and as an integrated system (Koontz, 1962). This school recognized that an organization is a social organism, subject to all the pressures and conflicts of the cultural environment. Also, the school recognized the awareness of the institutional foundations of organizational authority as well as the influence of the informal organization. This school of thought also tends to be organic.

Decision Theory

The approach of the Decision Theory School is to deal with the decision itself, or with the persons or organizational group making the decision, or an analysis of the decision process (Koontz, 1962). This school has members who are mostly economic theorists. The school is heavily focused to model construction and mathematics. The scientific approach to management and making decisions under risk and uncertainty was used to a minimal extent in the Assessment instrument. This school of management thought tends to be mechanistic in nature.

Mathematical School

The mathematical School views management as a system of mathematical models and processes (Koontz, 1962). It includes operational research or operations analysts who

believe that everything can be expressed by mathematical symbols and relationships. Koontz viewed this school as a tool for solving or simplifying complex problems rather than a school of management theory. Very few principles were used from this school of management thought. Like the decision theory school, this also is mechanistic.

After reviewing the literature, ten categories were identified for use in this Assessment Instrument. These ten categories represent areas of an organization that will give an indication of how organic or mechanistic it is. These ten categories are not intended to reflect the only areas in an organization that are important, but rather provide a solid framework for comparing organizations and establishing a baseline for later comparison. While these ten categories do not cover every conceivable area of an organization, they represent the main areas of management theory and are used by other management assessment instruments and were easy to measure and define in terms of organic and mechanistic.

Each of the ten categories: organizational structure, access to information, communication, reward system, goal setting/strategic planning, motivation techniques, leadership style, decision making/problem solving, control systems and training/education will be discussed in detail. For each category, a rationale for why the category was included and what constitutes the organic and mechanistic characteristics will be provided.

B. Assessment Instrument Research

Organizational Structure

There are numerous texts and articles regarding organization structure and how an organization should be structured for success. The intent of this assessment is not to dictate

a certain structure, but rather to make a general conclusion about an organization based on its structure. Looking at organization structure is a logical approach, since March and Simon first used the terms organic and mechanistic to describe an organization structure (March and Simon, 1958).

Also, organization structure is a major factor affecting other aspects of an organization. While it is true that "any organization structure can work if the workers want it to", the organizational structure provides a starting point to evaluate an organization (Kerzner, 1998).

For purposes of this assessment instrument, only a few basic organization structures were used. It would not be feasible to try and incorporate all of the different variances in organizational structure. In general, most organizations will fall within one of the following categories; bureaucracy, functional, divisional, matrix, teams and adhocracy.

Bureaucracy

Most people are familiar with the term bureaucracy, however many are unable to clearly define what makes an organization bureaucratic. Max Weber first used the term bureaucracy to define an organization as a positive attribute (Weber, 1947). Weber's bureaucracy was appropriate for its period. In Weber's time, there were many abuses by owners and managers towards workers. The bureaucracy protected the workers from being mistreated.

Weber defined a bureaucracy as:

- A continuous organization of official functions bounded by rules.

- Every office has a sphere of competence. Division of labor and specialization are the basis of the system.

- A strict chain of command to prevent favoritism.

- Regulations by norms and rules. These norms and rules were generally accepted and not the individual manager's ideas. This also prevented any abuses in the organization.

- Managers and employees were separate from owners and distinctly different.

- Managers could not appropriate their offices, (subcontract). A manager is a manager and has certain responsibilities and authority.

- All administrative acts are recorded. This is to ensure fairness and is evidence of workers and managers following rules and encouraging standardization.

While a bureaucracy was an acceptable structure many years ago, today the bureaucracy is an organization structure that is not conducive for success. In today's ever-changing world, organizations need to be able to react quickly to changing times.

A bureaucracy is unable to quickly respond to problems and react to changes in the market. The bureaucracy is indicative of both the Rational Model and Burns and Stalker's definition of mechanistic.

The federal government is a classic example of a typical bureaucracy. Another good example is General Motors. The problems associated with both of these organizations clearly indicate that a bureaucratic organization is not the best structure. The bureaucratic organization structure is mechanistic in every manner.

Functional Organization

The functional organization is also a very common structure, especially for large organizations (Kerzner, 1998). Figure 2.1 shows a typical functional organizational chart. Most large functional organizations also tend to be very bureaucratic. The functional structure is a stovepipe structure with each department responsible for their individual tasks and duties. There is no manager common to each area within or across the organization, except at the very top of the organization.

There are some advantages of a functional structure. These advantages include: easier budgeting and control, flexible use of manpower, provides continuity in functional disciplines, and communication channels are well established.

However, the large functional structure is similar to the bureaucracy in that it is slow to respond to a fast paced environment.

Functional Organization
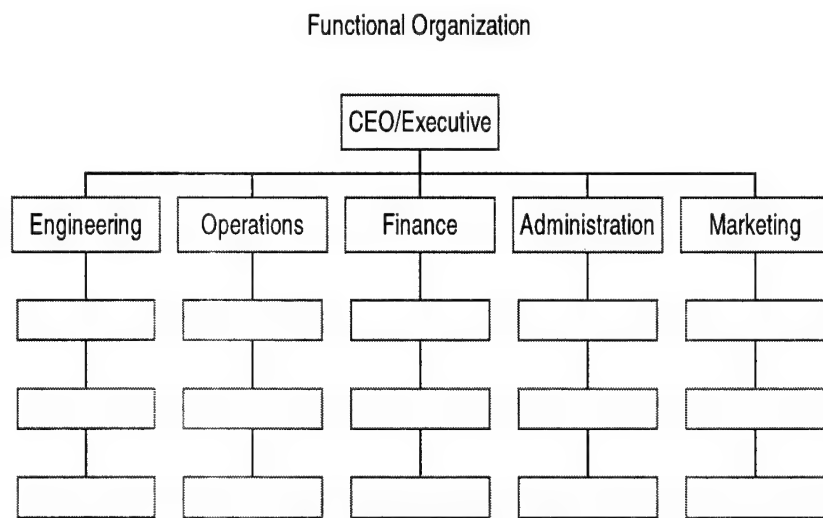
Figure 2. 1 Functional Organization Structure

There are many disadvantages to the functional organization. They include: decreased motivation and innovation, no single customer focal point, decisions normally favor the strongest functional group, slow response to customer needs and difficulty in identifying responsibility. Also, since most important decisions are made at the top of the organization, decisions are slower and made farther away from the actual problem area sometimes even in a vacuum.

It is clear from the disadvantages listed that the large functional organization structure is very mechanistic.

Divisional Organization

At first glance, the divisional organization seems very similar to the functional structure (Kerzner, 1998). However, there are many significant differences between the two structures. Figure 2.2 is an example of a divisional structure.

The divisional structure is set up for a family of products or services and focuses on the goals and objectives specific to the division. This allows the division to be self-managed. Most divisional structures have a headquarters that oversees many divisions, but the headquarters is not involved in the day-to-day activities of operation.

A divisional structure tends to be very cost effective due to a narrow definition of success, which is widely known and understood throughout the organization. Also, the organization usually has greater cohesion, more teamwork and more cross training than a functional structure. This structure also is very quick to make decisions and solve problems since the division has the authority to make the decisions at the division level.

Divisional Organization
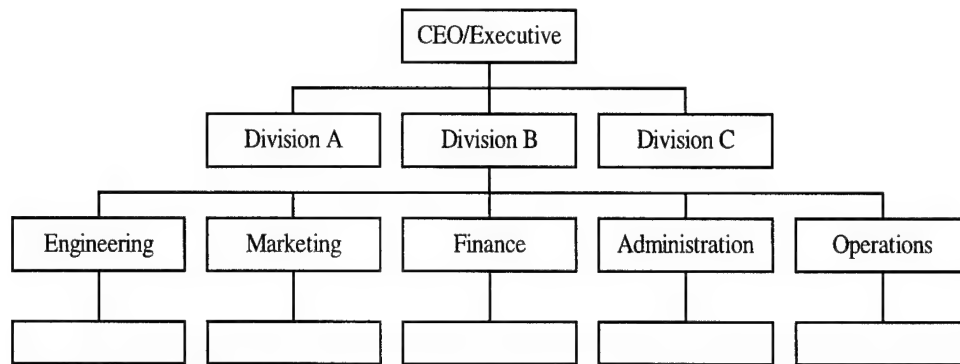
Figure 2. 2 Division Organization Structure

However, divisions can be ineffective if they get too large. When a divisional structure gets too large and has a strong headquarters interfering, the organization behaves like a functional organization. The American automobile industry is a good example. General Motors specifically is "divisional" but is so large and bureaucratic that it acts like a large functional organization.

In Search of Excellence research indicated this was the most common organization structure for excellent companies (Peters and Waterman, 1982). Peters and Waterman cited Johnson & Johnson as an example of a large organization operating successfully in a divisional structure. They also cited numerous other excellent organizations using a divisional structure. They include Hewlett-Packard, Emerson, Digital, Dana and 3M. Peters and Waterman identified four supports that make the divisional structure work. These were:

1. Extraordinary divisional integrity. All the main functions, including product development, finance and personnel are in each division.

2. Constant hiving off of new divisions and rewards for doing so. Johnson and Johnson's 150 divisions are up from only 80 ten years ago.

3. A set of guidelines that describe when a new product or product line automatically becomes an independent division, e.g. at the $20 million level at 3M.

4. Shifting people and even products or product lines among divisions on a regular basis without the acrimony this would create in most companies.

The advantages listed and the findings from In Search of Excellence define a divisional structure as an organic structure. The divisional structure is more organic than the functional, unless it grows too large.

Matrix

The matrix structure is a hybrid of the functional and divisional form (Kerzner, 1998). A typical matrix structure is in Figure 2.3. Most matrix organizations are organized

Matrix Organization
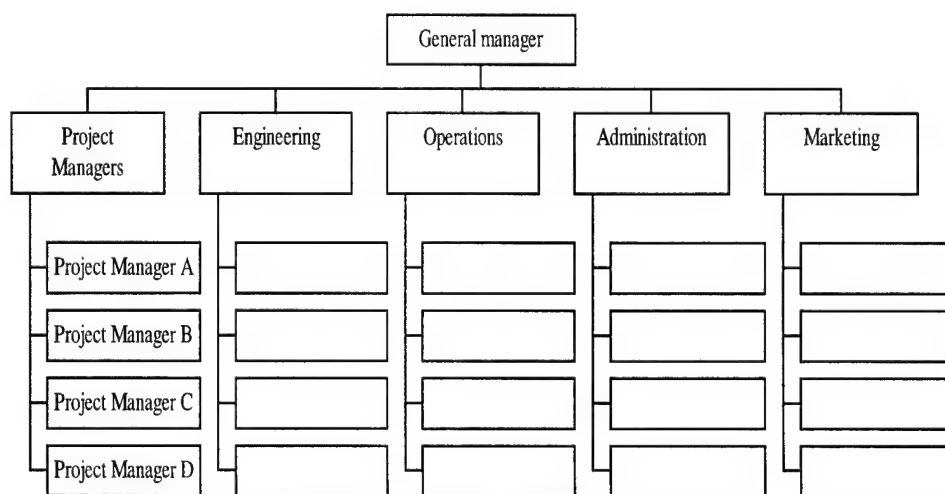
Figure 2. 3 Matrix Organization Structure

around projects. Each project manager draws human resources from various functional areas for a given project. This structure was intended to allow flexibility in assigning personnel while maintaining functional expertise.

However, there are many problems with the matrix structure. The first problem is the "two-boss" problem. A worker has two different bosses, with two different sets of ideas on priorities. The project manager is obviously focused on the individual project, while the functional manager is trying to efficiently utilize resources. There is no one entity looking out for the best interest of the organization. Also, the supervisor who is responsible for evaluations and raises usually has the most influence over the worker.

This structure causes the organization to become paralyzed because the structure not only does not make priorities clear, it automatically dilutes priorities (Peters and Waterman, 1982). In effect, the organization is telling workers that everything is equally important and workers feel like they have little control over their own destiny.

In Search of Excellence did not identify any excellent companies with this organizational structure (Peters and Waterman, 1982).

For these reasons, the matrix structure was classified as a mechanistic structure.

As discussed earlier, there is no one best structure. The overriding factor in any structure is size. Larger organizations tend to be more mechanistic than smaller ones.

There were other organizational structures used in the Assessment Instrument. These included the team based and adhocracy structures. These two structures are relatively new to the business world. These structures are usually found in the high technology and innovative industries.

Mintzberg linked innovation to organizational structure (Mintzberg, 1971). Mintzberg determined that for an organization to be very innovative, the adhocracy form worked best. Mintzberg stated, "..innovation requires a different configuration, one that is able to fuse experts drawn from different disciplines into a smoothly functioning ad hoc project teams...the resulting structure may be termed adhocracy."

Finally, organization structure is also well defined in the In Search of Excellence trait of "Simple Form-Lean Staff." (Peters and Waterman, 1982). They indicated that complexity leads to more staff. They felt is was important to have small staff groups, few administrative layers, and few people at the upper levels. This allows an organization to be flexible, autonomous and quick to respond to customer needs and problems. This was evident in their excellent companies.

In Search of Excellence defined three pillars of structure in the 1980's for excellent companies. They were:

Stability	Habit Breaking	Entrepreneurship
Divisional Form	Regular Reorganization	Innovate
Keep Consistent	Experimental Units	Smallness
Flexible to Change		Hive off divisions

In Search of Excellence determined that small divisional structures worked best. The characteristics identified were:

1. Divisional integrity (Decentralization)

2. Promote smallness

3. Set goals for spin-off

4. Shift resources regularly

These characteristics are what make an organization organic.

Now that the different structures have been defined, there needs to be a bridge between the organizational structure and why the structure tends to be mechanistic. There are the reasons discussed earlier for each structure in terms of the way work gets done. However, the important aspect of structure is to understand the effects it has on the workers.

Chris Argyris identified inherent problems that exist between the worker and the organizational structure (Argyris, 1957). Argyris identified the properties of the formal organizational structure. These included:

- Division of Labor

- Chain of Command

- Unity of Command

- Span of Control vs. Span of Support

The differences between Span of Control and Span of Support are shown in Figure 2.4 (Utley, 1998). Span of Control focuses on how many workers an manager can adequately supervise and control, while span of support looks at the situation as inverted, where the manager looks at how many employees he/she can effectively support.

Figure 2. 4 Span of Control vs. Span of Support

Span of Control is a mechanistic view of the situation, while span of support is an organic view.

Argyris also looked at the properties of human personalities and the basic developmental trends of humans. In summary, his findings included:

- Humans develop from a state of being passive to being active

- Humans develop from a state of dependency as an infant to independence as an adult

- Humans develop from having simple behavior to complex and multiple behaviors

- Humans develop from having shallow and erratic interest to deep commitment as an adult

- Humans develop from a short term time perspective to long term

- Humans develop from a subordinate position to peer to leader

- Humans develop from a lack of self awareness to awareness and self control

Argyris discovered three incongruencies between the needs of a mature personality and that of the formal organization structure. These were:

1. There is a lack of congruency between the need of the health individual and the demands of the organization.

2. The results of this disturbance are frustration, failure, short time perspectives and conflicts.

3. The nature of the organization causes the subordinate to experience competitive, rivalry, and hostility and to focus on the parts rather than the whole.

This incongruency increases with worker maturity, as the formal organization becomes more defined, the further down the chain of command and as the job becomes

more routine. Most workers in this situation leave the organization, move up the chain or give into the situation and become apathetic.

Organizations that take into account these incongruencies and focus on reducing the impact are organic.

These results of Argyris, are the underlying principles of why an organic structure is more effective than a mechanistic one, regardless of the specific structure.

Access to Information

In today's business environment, if an organization is to remain competitive, the workers need to have access to information to make decisions and react quickly. Many organizations still try to keep information from workers, or even try to hide information or wait until management feels workers "need to know". This mindset is indicative of a McGregor Theory X assumption of employees (McGregor, 1957). Theory X assumes that workers are not very bright, self-centered, resist change at all costs, lazy, avoid responsibility, dislike work, and need to be controlled and directed by management to be productive. These assumptions are counterproductive and create a self-fulfilling prophecy for workers according to McGregor. This is a mechanistic approach.

However, by utilizing current technology and ensuring all workers are kept up to date with the latest information, management is exhibiting a more Theory Y approach to management. McGregor's Theory Y assumes that people want to contribute, will seek out responsibility, are self-directed if given the appropriate knowledge, want to grow and learn, and are underutilized. This is an organic approach.

Peters and Waterman also observed problems with access to information in their research of top performing companies in In Search of Excellence (Peters and Waterman, 1982). Peters and Waterman identified one attribute of successful companies as Productivity Through People. Productivity Through People creates in all employees the awareness that their best efforts are essential and they all share in the rewards of company success. In order for this to happen, they need access to all information. This attribute is similar to McGregor's Theory Y assumptions.

Peters and Waterman noted that information was commonly used as a controlling device toward workers in unsuccessful companies, while information was free flowing in excellent companies.

Access to Information is used separately from Communications for this Assessment Instrument. While Access to Information may be considered a part of the overall communication network, for the Assessment Instrument the organizations' philosophy regarding how accessible information was to workers was the primary factor considered. This management philosophy is a good category to look at in order to see how management perceives workers.

Communications

Communications are closely related to organizational structure. The purpose of identifying how communications flowed through the organization is to determine how formal and structured the organization tends to be. An organization may be small or call itself divisional in form, however, the way communication flows through an organization is another category that is clearly defined as mechanistic or organic.

Mechanistic organizations tend to have very formal communications systems that reflect the rigidity of its structure. Most communication, whether it is written, spoken, or electronic, is usually formal and well documented (Dessler, 1995). Also, communication tends to be one-way only. Workers do not have the freedom to interact with other departments without first talking to their immediate supervisor. Most problems between departments in an organization are handled at the same level of common management. Finally, most communication is also downward directed. Management does not allow workers to ask questions or provide solutions to problems. This type of communication again utilizes McGregor Theory X assumptions, as discussed earlier.

One the other hand, organic organizations tend to have very open and informal communication systems. Communication is free flowing in all directions. Workers are kept informed and are able to quickly respond to problems. This is well-illustrated in Leavit's All Channel Net (Leavit, 1972).
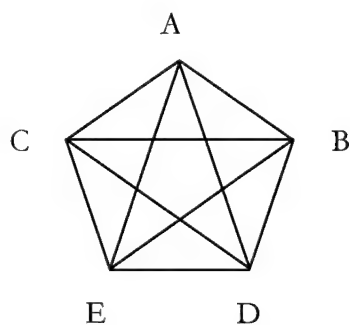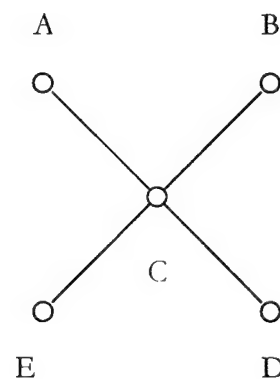
All Channel Net   Wheel Net

Figure 2. 5 All Channel Net and Wheel Net

The All Channel Net shows how everyone can communicate with everyone else vs. the Wheel Net where workers can only communicate from node to node. The All Channel Net is indicative of a divisional structure while the Wheel Net is common in functional structures.

The All Channel Net also allows information to freely flow among workers. In the All Channel Net, the decision making process is more decentralized. This will be further discussed in the category for decision making.

The All Channel Net is the organic structure while the Wheel Net is more mechanistic.

Open communication systems are also evident in some large organizations that tend to have less organic structure. These open communication systems are part of the informal organization structure, not sanctioned by the chain of command and one means to overcome the problems of a formal organization structure.

Peters and Waterman also found that most excellent companies used very informal and often unorthodox means of communicating (Peters and Waterman, 1982). They found that the by-product of a vast network of open and informal communication is the ability to have your cake and eat it too. The rich communication leads to more action, more experiments, more learning, and simultaneously to the ability to stay better in touch and on top of things.

Peters and Waterman found three techniques that were used by organizations to encourage informal communication. These were:

1. Communications systems are informal.

2. Communication intensity is extraordinary.

3. Communication is given physical support

Reward Systems

The way an organization rewards employees speaks volumes about an organization. There are numerous incentive programs and reward systems in use today. While there are many effective reward systems in use, most systems can be classified as either organic or mechanistic in nature.

Katz and Kahn's theory of compliance looked at the relationship between rewards and motivation (Katz and Kahn, 1966). Rewards are closely related to motivation and Katz and Kahn classified the use of rewards or instrumental satisfaction to induce behavior as a means to achieve motivation. Katz and Kahn identified four motivational patterns for producing various types of required behavior.

They were:

1. Legal compliance

2. Use of rewards

3. Internalized self-determination

4. Internalized values of organizational goals

In terms of organic and mechanistic, motivational patterns 1 and 2 are mechanistic while patterns 3 and 4 are organic.

Herzberg also identified rewards in his two-factor theory of job satisfaction. Herzberg identified hygiene factors and motivators in his model (Herzberg, 1968). Hygiene factors acted only as non-dissastisfiers, indicating that lack of these only created dissatisfaction in worker, but monetary rewards did not actually motivate an employee. Only through the motivators, did workers actually become motivated. Herzberg classified

monetary rewards as a hygiene factor and not a motivator. Here, rewards are linked to motivation.

Other hygiene factors included company policy and administration, supervision, interpersonal relationships, working conditions, status and security.

These motivational theories are discussed in more detail in the motivational section of the project, but the subsets of rewards are used now to show how these types of rewards are mechanistic in nature.

Kerr identified one major problem with the rewards systems in use by many organizations (Kerr, 1975). Kerr called this the "Folly of Rewarding A While Hoping for B".

Kerr stated that all organisms seek information to identify those activities that are rewarded and these are the activities that they perform.

Kerr also cited numerous examples of reward systems designed that rewarded behavior the manager is attempting to discourage, while not rewarding desired behavior.

An excellent example Kerr used was in comparing the Vietnam War to World War II. In WWII, the worker (GI) wanted "to go home". He wanted to go home when the war was won. He knew that disobeying orders meant the war would not be won and he would not be able to go home. So, he found it expedient to obey.

However, in Vietnam, the GI wanted to go home when his tour of duty was complete, not when the war was won. He went home whether the war was won or lost. The military was implementing a system that rewarded disobedience while hoping that soldiers would obey orders.

In order for rewards to be motivational and therefore organic, the rewards need to be based on team efforts and accomplishments and not individual success. By rewarding the entire team or organization for overall success instead of individual success, the signal is sent to the worker that the organization is looking out for the entire company.

Goal Setting/Strategic Planing

Goal setting and strategic planning are also important variables in determining an organization's success. Similar to decision-making and problem solving, the underlying importance of these areas are that the goals and plans are developed with the help of the individual workers and not by corporate managers isolated from the operation.

Locke and Latham discussed goal setting and also linked it to motivation (Locke, Latham, 1979). They found that workers who are given specific goals are more productive than those who don't have goals. They also found that workers who were given specific goals outperformed those with vague goals. Likewise, they discovered that employees given highly challenging goals perform better than those with moderately difficult or easily attainable goals. Finally, pay and feedback lead to improved performance only when they lead individual employees to set high goals.

They also found that goal setting improves productivity by providing workers with several benefits. These include:

1. Difficult, yet attainable, goals increase the challenge of the job.

2. Specific goals make it clear what the workers is expected to do.

3. Goal feedback provides the workers with a sense of achievement recognition and accomplishment.

Finally, they identified three steps that should be followed in goal setting for best results. These were:

1. Goals should be specific and challenging, yet achievable and can be derived from several sources.

2. Goal commitment should be obtained by providing instruction backed with positive support in the absence of threats and intimidation.

3. Support element should be provided to ensure that the employees have the adequate resources to accomplish goals.

Likert also identified this importance of goals in his System IV (Likert, 1967). Likert focused on how goals were issued to workers. In his System 1, goals were issued from management and System 2 goals were issued and the opportunity for workers to comment may or may not exist. These two systems are mechanistic in nature.

Conversely, in System 3, goals are set after discussion with subordinates of problems and planned action. Finally, in System 4, goals are usually established by means of group participation. Systems 3 and 4 are organic in nature.

Motivation Techniques

What really motivates individuals in the work place is a widely discussed topic. There are many theories and studies regarding this topic. As with organization structure, there is no one best way to motivate all workers. However, there are a few generally accepted principles regarding motivation techniques that can be defined in terms or organic and mechanistic.

The underlying theory used in the Assessment Instrument was Herzberg's Two-Factor Theory of Job Satisfaction (Herzberg, 1968).

Herzberg discussed two types of motivational theories. His first is the Kick in the pants or KITA approach. Herzberg breaks down KITA into two forms, negative psychological KITA and positive psychological KITA.

Negative KITA is the stick approach to motivating workers. This approach makes workers feel guilty in order to get them to perform.

Positive KITA is defined as the carrot or reward based motivation. However, Herzberg does not define these techniques as truly motivational. He states that this causes motion and movement but not motivation for the worker. The managers are motivated, but not the worker. This is a manipulative approach and mechanistic.

Herzberg's Two-Factor Theory of Job Satisfaction is a better system of understanding motivation. Herzberg defines the two factors as either hygienes or motivators. The hygienes are company policy, working conditions, relations with boss and co-workers, salary and benefits. These hygienes, however, do not motivate workers. These hygienes act only as dissatisfiers. Workers will be unhappy if any of these factors are missing, but if all are present, the worker will still not be truly motivated.

Herzberg's other factors, motivators, are recognition, achievement, responsibility and authority, the job itself, growth and advancement. Without these motivators present, the worker at best is not dissatisfied. However, in order for a worker to be motivated, the motivating factors must be present. This use of motivators is organic.

The work of Maslow is also very well known and used in practice (Maslow, 1943). Maslow's Hierarchy of Human Needs is shown in Figure 2.6.

Maslow defined each of these steps in the hierarchy as follows:

1. Physiological- These needs are the basic needs to support life. These include thirst, hunger and comfort.

2. Safety- These needs include items such as job security, health, fringe benefits and physical safety.

3. Membership (social needs)- These needs include the feeling of being part of a group, feeling accepted, and having friendships and relationships.

4. Esteem- These needs include both public and self-esteem. These items include reputation, status, recognition, respect, sense of value/worth, competence, and achievement.

5. Self-Actualization- This is best described as "what a man can be, he must be". This need is motivating an individual regardless of pay or incentive. An example would be a musician who is only happy if he is playing music.

The Hierarchy of Human Needs identifies those needs that motivate an individual. The basic premise of the hierarchy is that in order for someone to be motivated, the needs at the appropriate level in the hierarchy must first be met. The hierarchy also provides the relative importance of the different needs that must be met in order for motivation to occur.

The key to this hierarchy is to understand what level in the hierarchy the worker is at so the appropriate motivation can be used. If an employee were having financial difficulty at home, they would be at the safety level in the hierarchy and not be concerned about feeling as part of a team in order to be motivated. Likewise, a worker at the self-actualization level would not be concerned with bonuses and pay.
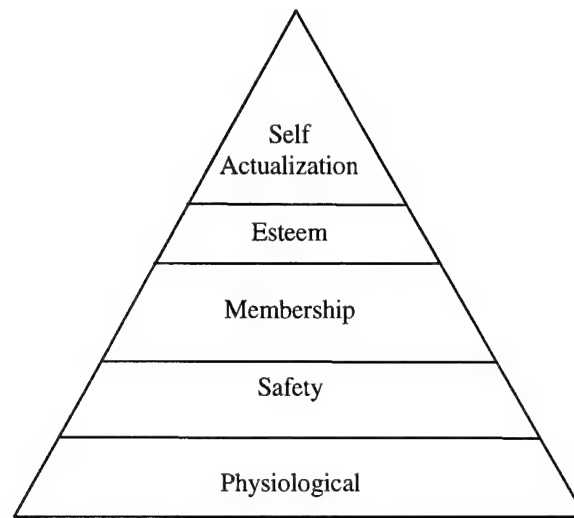
Figure 2. 6 Maslow's Hierarchy of Human Needs

The hierarchy also states that the emergence of a need higher in the hierarchy can only be achieved after prior satisfaction of the previous need.

In terms of organic and mechanistic characteristics, organizations that focus on the lower levels of the hierarchy (safety and physiological) would be more mechanistic, while the upper levels (membership, esteem, and self-actualization) are more organic.

Likert used these principles in his System IV (Likert, 1967). Likert identified the lower level hierarchy needs in Systems 1 and 2, which are mechanistic. He also identified the upper level needs as motivators in Systems 3 and 4, which are organic.

Leadership Styles

Leadership is the glue that ties all of the other categories together. There are many different opinions on how to properly lead an organization. The intent of this paper is not to specifically determine what leadership styles are best, but rather to make general

conclusions about the different types of leadership behavior and categorize them as mechanistic or organic. There are many special instances where different leadership styles are more effective than others, but the following leadership systems were reviewed and analyzed in terms of organic and mechanistic.

Likert System IV

Likert identified seven organizational variables and developed four different types of management systems (Likert, 1961). These four systems are identified in Figure 2.7. Many of the organizational variables used by Likert are present in the Assessment Instrument. Using Likert's Systems, Systems 1 and 2 were defined as mechanistic while Systems 3 and 4 were defined as organic.

The seven organizational variables Likert used were:

1. Leadership Processes

2. Character of Motivational Forces

3. Character of Communication Process

4. Character of Interaction Influence Process

5. Character of Decision Making Process

6. Character of Goal Setting or Ordering

7. Character of Control Process

Likert's Management Systems

SYSTEM 1	SYSTEM 2	SYSTEM 3	SYSTEM 4
Exploitive/ Authoritative	Benevolent/ Authoritative	Consultative/ Democratic	Participative/ Democratic

◄———— Mechanistic ————►◄———— Organic ————►
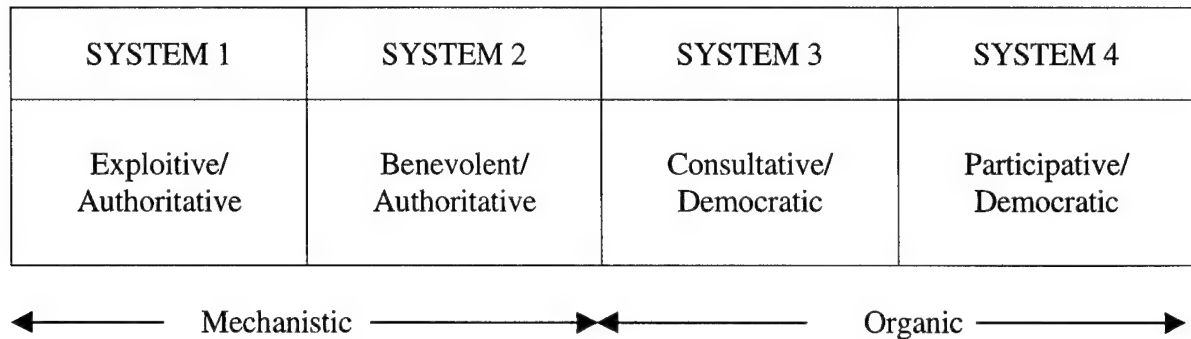
Figure 2. 7 Likert's System 4 Management System

The following is a summary of Likert's four basic systems of leadership:

System 1: Management has little confidence in the subordinates as seen by the fact that they are seldom involved in the decision-making process. Management makes most decisions and passes them down the line, employing threats and coercion when necessary to get things done. Superiors and subordinates deal with each other in an atmosphere of distrust. If an informal organization develops, it generally opposes the goals of the formal organization.

System 2: Management acts in a condescending manner towards subordinates. Although there is some decision-making at the lower levels it occurs within a prescribed framework. Rewards and some actual punishment are used to motivate the workers. In superior-subordinate interactions, the management acts condescending and the subordinates appear cautious and fearful. Although an informal organization usually develops, it does not always oppose the goals of the formal organization.

System 3: Management has quite a bit of confidence and trust in the subordinates. Although major important decisions are made at the top, subordinates make specific

decisions at lower levels. Two-way communication is in evidence, and there is some confidence and trust between superiors and subordinates. If an informal structure develops, it will either support or offer only slight resistance to the formal organization.

System 4: Management has complete confidence and trust in the subordinates. Decision-making is highly decentralized. Communication not only flows up and down the organization but among peers as well. Superior-subordinate interactions take place in a friendly environment and are characterized by mutual confidence and trust. The formal and informal organizations are often one and the same.

Blake & Mouton Managerial Grid

The Managerial Grid is one tool and system is use today (Blake and Mouton, 1964). Figure 2.8 shows an overview of the grid. The Managerial Grid is a tool used to determine which default areas a manager tends to operate in. The system asks numerous questions with different scenarios, and a manager indicates which response best describes how he/she would handle the situation.

Blake & Mouton's Managerial Grid
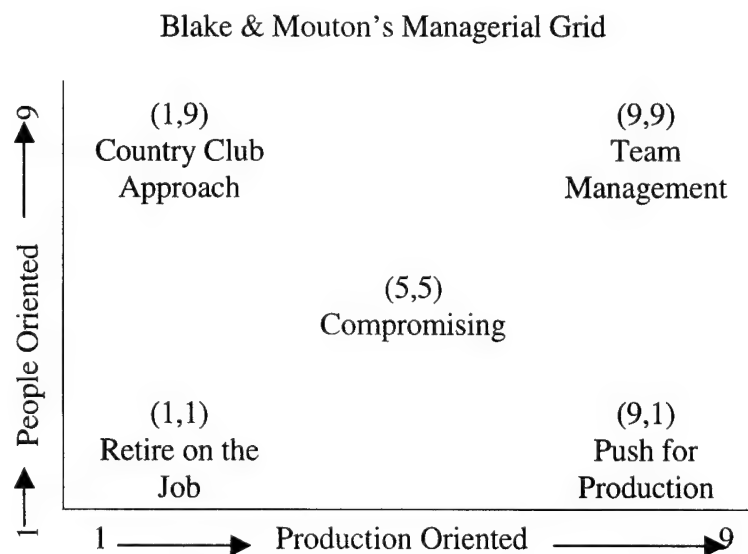
Figure 2. 8 Blake & Mouton's Managerial Grid

Blake & Mouton's Managerial Grid describes most leadership actions in terms of favoring a people oriented or production oriented view. Five positions on the grid are discussed.

Position (1,1): This position is the "Retired on the Job" position. This manager is equally unconcerned for people or production and is marking time and collecting a paycheck. This is a poor and ineffective leadership style since there is no motivation or decisions being made. This position can be like cancer and spread apathy throughout the organization.

Position (5,5): The "Compromising" position is where a manager is unwilling to make the difficult decisions regarding production or people and tries to make everyone happy, while possibly not making the tough decisions that a manger must make. The "Compromiser" will compromise to not make anyone unhappy, but it may be at the expense of the overall organization.

Position (1, 9): The "Push for Production" position is used by mangers who feel that people are another commodity that can be easily replaced. The bottom line of producing is the only thing that matters.

Position (9,1): This is the "Country Club" style of leadership. In this area, a manger is only concerned about making all the workers happy, even to the extent that it may be detrimental to the organization.

All of these positions are not the preferred region for managers to operate and are mainly mechanistic.

Position (9,9): The "Team Approach" is the most organic position and the preferred position for managers to operate. This position takes into account both people

and production concerns. Mangers in this area are capable of making the tough decisions and have a good working environment with bosses and workers participating fully, so that when the difficult decisions are made, everyone else understands the decisions.

The Assessment Instrument targeted the (9,9) position as organic, and the other positions mostly mechanistic, except for the Compromising position, which is neutral.

Hersey & Blanchard Situational Leadership

Hersey & Blanchard's Situational Leadership style is another commonly used management assessment tool (Hersey and Blanchard, 1974). The basic assumption in this model is that effective leadership styles change depending on the maturity level of the workers and the complexity of the tasks. While this philosophy is effective in specific instances where there is a large turnover of managers or workers, as in the military or construction, changing leadership styles frequently has some negative effects. First, the manager decides what situation is best to operate in. This is a top-down decision. Second, it assumes that the manager knows more about the problems and solutions than the subordinates who are working on the problem day in and day out. Third, this style makes it difficult for the workers to read the manager and know what to expect since the manager reacts differently to various situations. Finally, this model starts at the telling stage as the default position. The situation may call for a different style, but the model dictates that the style moves from telling towards delegating in sequence.

The four zones in the model are: Telling. Selling, Participating, and Delegating.

The Assessment Instrument considered a situational style of leadership neither organic nor mechanistic but neutral. However, if this system is in use by managers, the

four individual positions can be attributed to organic and mechanistic characteristics. The model is shown in Figure 2.9.

Hersey & Blanchard's Situational Leadership Model

Effective Styles
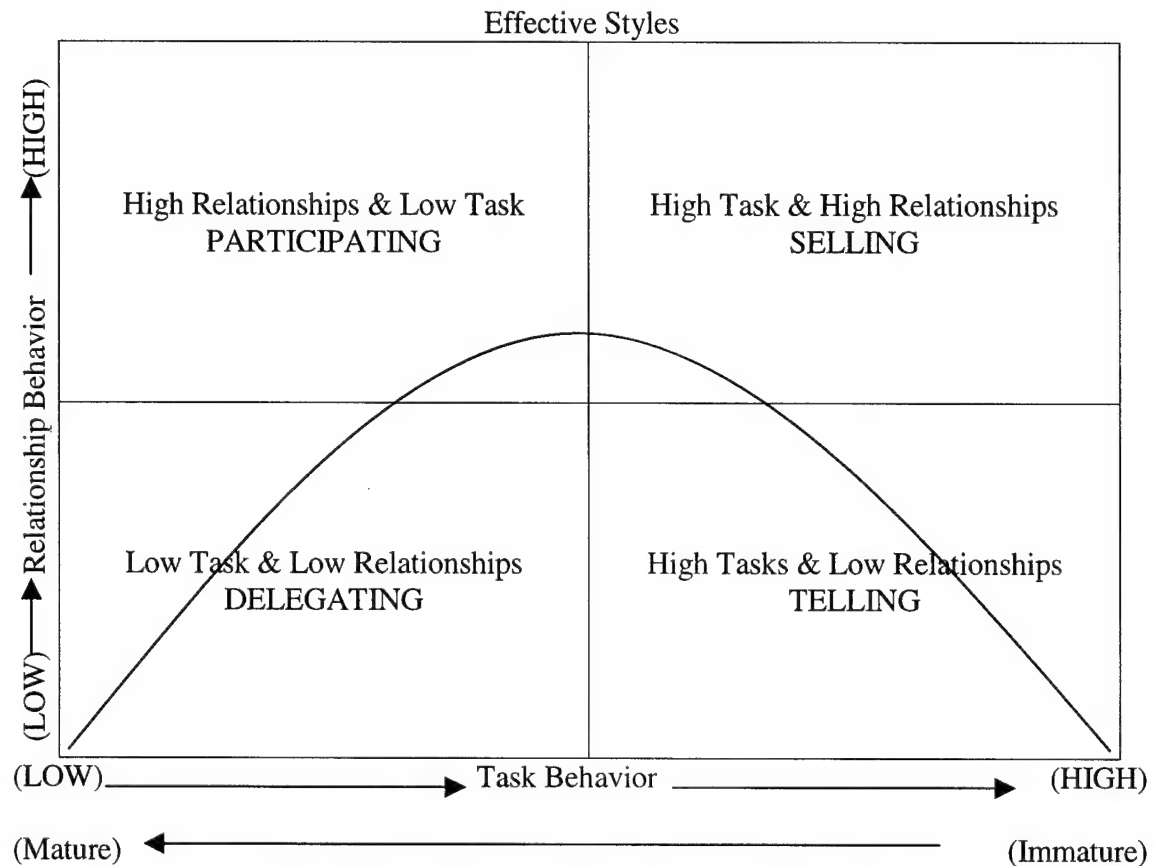
Figure 2. 9 Hersey & Blanchard's Situational Leadership Model

The delegating style is where managers have confidence in workers to perform a specific task and indicates an organic style. There is a level of trust between managers and workers as well as freedom of workers to complete work without close supervision. The participating style, is more organic than mechanistic. This style uses a participating style of leadership where a managers allows the workers to suggest ideas on how to get work done and actually participate in the decision and implementation within limits. This participating is the motivating technique in practice. The selling style is more mechanistic

than organic. The selling style assumes workers are not quite capable of performing the work and close supervision is necessary. Here, the manager tries to "sell" the worker on ideas. Finally, the telling style is the Army Drill Sergeant technique. Managers direct workers on what and how to do work. This is style of leadership is mechanistic.

Peters and Waterman also identified the importance of leadership in their trait of Hands On-Value Driven (Peters and Waterman, 1982). This principle focused on a Hands On leader that has vision and detail knowledge of the business. Characteristics of a Hands On leader include being persistent, visible, willing to pitch in, listen, keep people informed, communicate fun and excitement, be a role model, and discourage "yes" people.

The other half of the trait, Value Driven, is the control portion of the equation. The values that the leaders send out to the workers and what the company stands for are important aspects of leadership. These values are what act as control measures for the organization. This is an organic approach.

Decision Making/Problem Solving

The way an organization makes decisions and solves problems is an excellent indicator whether an organization is organic or mechanistic.

Likert included this as a variable in his System IV (Likert, 1961). Likert defined his Systems 1 and 2 as systems where most goal setting and problem solving was accomplished with little or no worker involvement. This type of philosophy is mechanistic. Likert also defined his Systems 3 and 4 where decisions are made and problem solving occurs at much lower levels in the origination. These are organic.

March and Simon also looked at the decision making process and defined in terms of Economic Man or Administrative Man (March and Simon, 1958). Economic Man used a Mathematical and Management Process Schools of Thought and tries to select the most optimal solution to every problem. Characteristics of Economic Man are:

1. All alternatives are given

2. Decisions are made under certainty-all results of decisions are known.

3. Decision-maker has known utility functions and functions are predictable.

4. If the decision is under certainty, no problem; if decision under risk, use utility function; and if uncertainty, use MINIMAX, or MAXIMUM REGRET criteria

Characteristics of Administration Man are:

1. Several alternatives can be identified

2. Consequences of decisions are vague

3. Utility functions do not exist

4. Similar problem solving approach for recurring and routine problems

The basic difference between Economic Man and Administration Man is that Administration Man is looking for a satisfactory decision within given constraints and time limits vs. Economic Man finding the most optimal decision through prescribed procedures and plans. Thus, Administration Man is more organic than Economic Man.

In Search of Excellence also identified the decision and goal setting process as important in identifying excellent companies (Peters and Waterman, 1982). The traits of a Bias for Action and Simultaneous Loose/Tight Properties are indicative of organic organizations. The creation of a Bias for Action in an organization allows for success by what the authors call speed and numbers. Speed and numbers allows experimenting

numerous times on a small scale to try and find new ways or products. The focus is on the number of tries, not necessarily successes. This also creates a leaky system that allows for inexpensive experimentation where the organization may learn something else.

The trait of Simultaneous Loose-Tight Process also relates to leadership. They call for loose control and tight values. The values in turn act as the control mechanism.

Control Systems

The control systems for the Assessment Instrument is a philosophy rather than a specific control for quality or meeting goals. As with many of the categories in the Assessment, there is no one best control mechanism for all organizations. However, there are certain aspects of control that are mechanistic and organic.

Likert identified control mechanisms as a variable in an organization (Likert, 1961). Likert's Systems 1 and 2 defined controls that are mechanistic, while Systems 3 and 4 were more organic. Likert's Systems 1 and 2 were similar to the definitions for the goal setting and problem solving discussed earlier. Mechanistic organizations tend to control most aspects of an organization from the top levels while organic organizations operating in Systems 3 and 4 tend to push the control operation down to the worker level. This is also related to McGregor Theory X and Y discussed earlier as well.

In Search of Excellence also identified attributes that were related to control (Peters and Waterman, 1982). The attributes, Hands On, Values Driven, as well as Productivity Through People related to controls. In Search of Excellence determined that many of the excellent organizations used company values and peer values to control the organization. This is a Theory Y approach to management.

Training/Education

Training and education were included in the assessment, although it may not be as obvious as the other categories as to its importance in today's business world. The way an organization handles training and education incorporates many of the other categories discussed in the assessment.

In today's fast paced world and changing technology, workers must be up to date on the latest technologies in order to remain competitive. Without adequate training, an organization will lose ground to competitors.

Likert identified training as an additional organizational variable in his System IV. Likert defined Systems 1 and 2 as having fair to poor training resources. He also defined Systems 3 and 4 by having very good to excellent resources for training.

Organizations today that are organic in nature place great emphasis on training and education. By training workers, the organization is inherently investing in the worker and the organization. Organic organizations also involve the worker in selecting training as well as encourage training other than job-related training and education.

Conversely, mechanistic organizations view workers as a raw commodity and do value the knowledge and innovation of the workforce and see training as a quick means to reduce budgets.

An excellent example of an organic organization focusing on training is Saturn. Saturn developed three criteria for success in the organization. The first two were quality and schedules and the third criterion was training. Saturn workers train 92 hours per year and often in areas that are not directly related to their day to day job. This is a very organic approach to training.

Another indication that training is now an important part of the business world was evident in Fortune magazine's annual rankings of the best organizations to work for (Solovar, 1998). The rankings included the number of training hours per employee for the year as a category.

The "typical" 100 best company offers 40 hours of training per year to managerial and professional employees. Some companies like Kingston Technology and Shell Oil exceeded 100 hours per year of training.

Chapter 3

METHODOLOGY

A.   Assessment Instrument

The Assessment Instrument targets ten categories to determine whether an organization is organic or mechanistic. The ten categories are organizational structure, access to information, communication, reward system, goal setting/strategic planning, motivation techniques, leadership style, decision making/problem solving, control systems, and education/training. The final Assessment Instrument, along with instructions and scoring, are included in Appendix D.

B.   Instruction & Implementation

The final Assessment Instrument in Appendix D is a complete and stand-alone product that has the instructions for use, scoring system and interpretation.

The Assessment Instrument should be given to as many workers in an organization as feasible in order to get a good representation for the organization. As a minimum, workers from different levels within the organization should complete the Assessment Instrument to gain knowledge and perspective from all levels.

Also, the "organization" needs to be defined at the time the assessment is handed out. The "organization" may be the entire company or a worker's individual section or

department. This is an important step since it may effect the overall results if the Assessment Instrument is not completed consistently across the entire organization.

C.   **Interpretation of Results**

Upon completion of the Assessment Instrument, the overall total score and individual category scores provide valuable insight into an organization.

The overall score gives an indication of the overall organic or mechanistic tendency for an organization. Any negative total scores indicate that an organization has an overall tendency to be mechanistic. Likewise, a positive total score indicates an organization tends to be organic. A total score near zero may indicate an overall tendency towards either organic or mechanistic, or it may indicate many mechanistic categories and equally as many organic categories.

The next step in understanding the Assessment Instrument is to review the individual categories. The categories with responses A should be reviewed first, response B next and so on. Addressing the most mechanistic categories first will provide a roadmap for identifying possible areas needing improvement. Finally, comparison of any differences in responses for the same category within the same organization between management and workers will also provide valuable information. If there are discrepancies between worker and management responses for the same categories, there is possibly a communication problem within the organization and those areas need further attention to determine why there were discrepancies

An example in interpreting the data is provided in the next section. The validation study data was used to give an overall understanding of interpreting the data.

Chapter 4

FINDINGS

A.   **Validation Study**

A validation study was conducted on two organizations to ensure the Assessment Instrument provided an accurate account of an overall organization.   This validation study is not intended to be a complete analysis of data.   As discussed in the recommendation section, numerous data points are necessary to completely validate the Assessment Instrument.

The validation study was also useful in receiving valuable feedback regarding the Assessment Instrument and to make sure the instructions, scoring and overall questions were clear and understandable.

The two organizations represented were the United States Air Force and Parker Hannifin Corporation.

The U.S. Air Force is a large, bureaucratic government agency. Ten officers from different career fields and located throughout the world completed the Assessment Instrument.   The large majority of the respondents were in the Civil Engineer career field. All of the participants were in first level or middle level of management.   The Air Force was selected since it was a large government organization that would most likely be more mechanistic than organic.

Parker-Hannifin is a worldwide manufacturer of motion control and fluid handling components for various industrial and aerospace markets.   Parker Hannifin produces over

1,400 different product lines for hydraulic, pneumatic and electromechanical applications. Founded in 1924, Parker Hannifin is a Fortune 500 company with sales of excess than $4 billion. Similar to Johnson and Johnson, Parker Hannifin is a decentralized informal organization with over 170 worldwide manufacturing plants comprising 86 divisions.

Parker Hannifin is a divisional organization that an employee and fellow Engineering Management student felt was somewhat organic in nature based on his understanding of mechanistic and organic properties from coursework at The University of Alabama-Huntsville.

B.   **Results of Validation Study**

The overall results from the validation study indicated the Assessment Instrument met the goals of being easy to use and understand, easy to score, quick to complete and also provided an accurate assessment of an organization in terms of being organic or mechanistic.

First, the Air Force data will be examined in detail to provide an example of how to interpret the data and decide whether an organization is organic or mechanistic, as well as outline the areas that need improvement.

Second, the data from Parker-Hannifin will be examined to understand the differences between the Air Force and Parker-Hannifin.

Finally, the combined data from the Air Force and Parker-Hannifin for the three follow-up questions will be reviewed to determine how easy the Assessment Instrument was to use and understand, how long it took to complete the Assessment Instrument, and how easy the scoring system was.

The following is the raw data from the U.S. Air Force:

Response	1	2	3	4	5	6	7	8	9	10	11	12	Total
Organization Structure	0	-2	-2	2	-2	0	0	-2	1	2	-2	-2	-7
Access to Information	2	0	-2	1	0	0	1	0	1	1	-1	0	3
Communication	1	-1	-1	1	0	-1	0	0	0	1	0	-1	-1
Reward System	1	1	-1	-1	-1	-1	1	0	1	1	0	-2	-1
Goal Setting/ Planning	1	0	0	1	-1	0	-2	0	1	2	-2	-2	-2
Motivation Techniques	1	1	-1	1	-2	-1	-1	1	2	2	-2	-2	-1
Leadership Style	0	0	-2	0	0	-2	2	0	0	0	0	-2	-4
Decision Making	1	-1	-1	1	0	-1	0	-1	0	1	-1	-1	-3
Control Systems	0	-2	-2	0	0	-2	-2	-2	0	0	-2	-2	-14
Training/ Education	1	0	-1	0	0	1	0	1	-1	0	-1	0	0
Total	8	-4	-13	6	-6	-7	-1	-3	5	10	-11	-14	-30
Mean													-2.50
Standard Deviation													8.24

Table 4. 1 Air Force Results

From the data, the overall total Air Force Score is negative. The average total score is (–2.50). This indicates that the Air Force tends to be mechanistic as a whole. Closer evaluation of the scores indicates a wide range of total scores. The standard deviation for the data was 8.24.

This indicates that while there are a few organic organizations within the Air Force, there are many more strong mechanistic organizations. While the average is only slightly

mechanistic, the large negative scores for many of the responses clearly indicate mechanistic tendencies. This is clearly identified in the Figure 4.1.

**US Air Force
(Overall Score)**
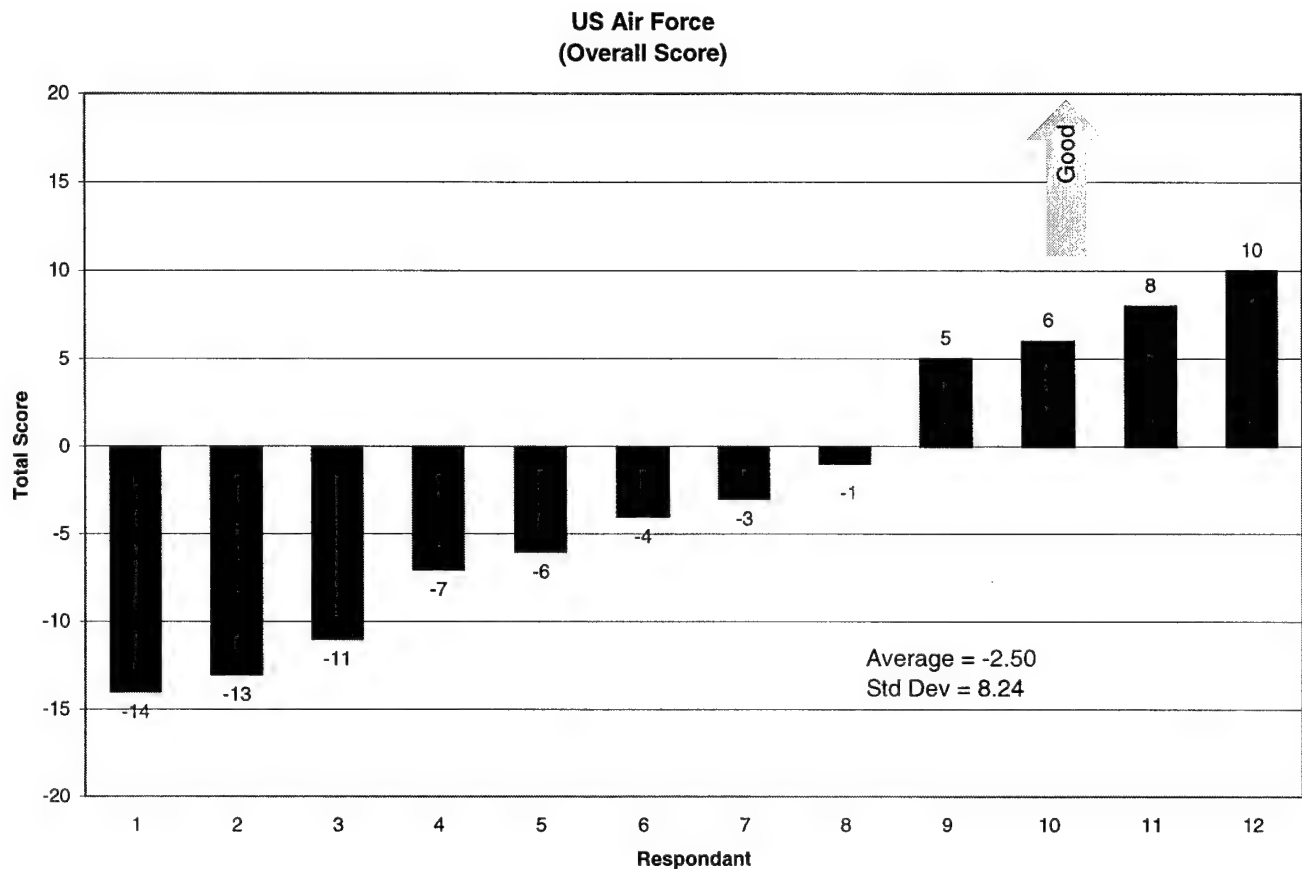
Figure 4. 1 Air Force Overall Score

Follow-up discussion with the three most organic organizations identified that these three organizations are somewhat organic in nature. These three organizations are "special duty" staff jobs and not indicative of the "regular Air Force". This explains the data to support only a slightly mechanistic organization. The average score for the remaining responses is –5.88, much more mechanistic that the –2.50 score.

After reviewing the total scores, the individual category scores were ranked from most negative to most positive. Figure 4.2 indicates the results.
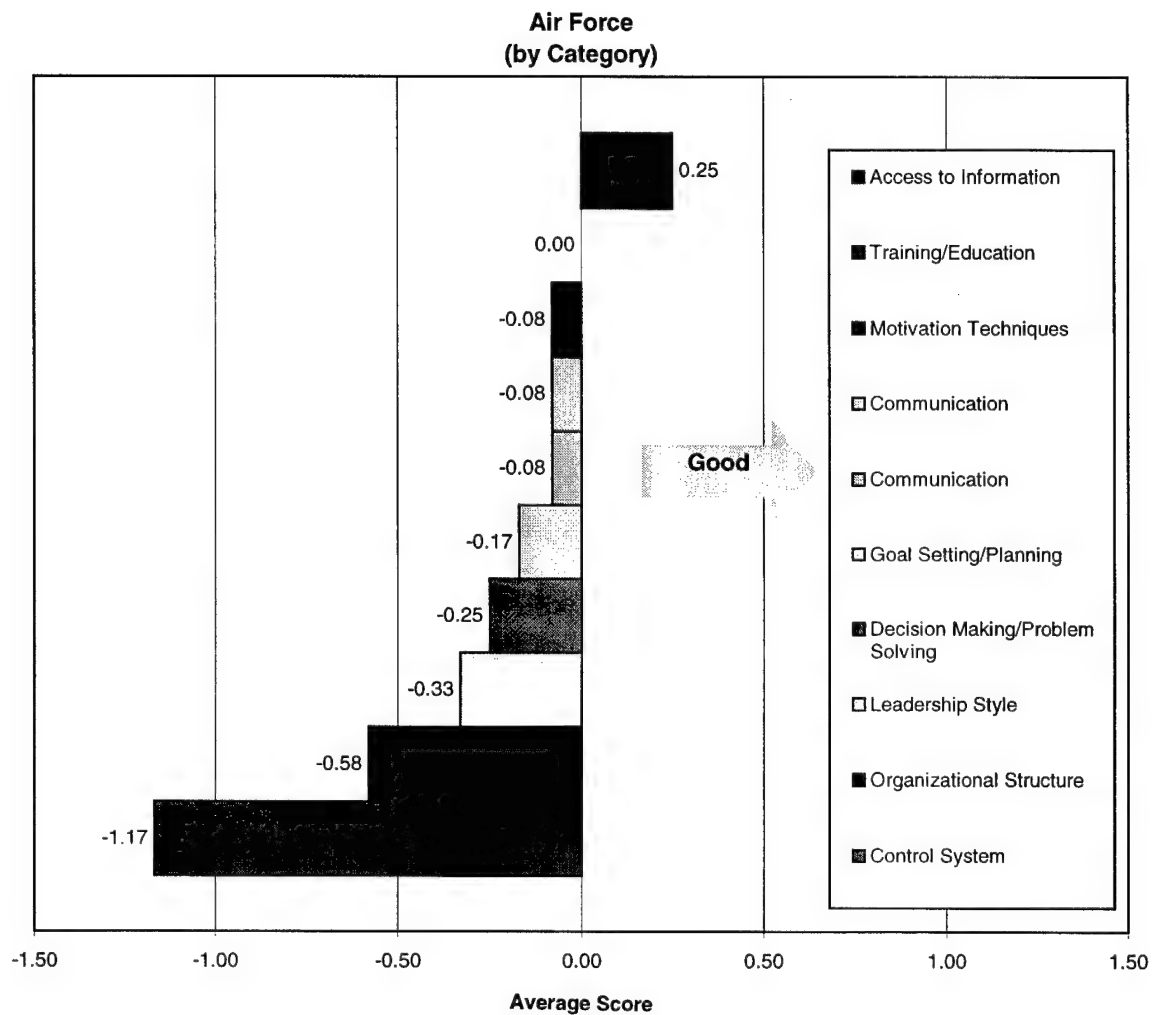
Figure 4. 2 Air Force Average by Category

From this information, the categories that need the most attention are:

1. Control Systems

2. Organizational Structure

3. Leadership Style

4. Decision Making/Problem Solving

5. Goal Setting/Strategic Planning

6. Communication

7. Motivation

These areas all had negative average and total scores. The Air Force needs to review the few organizations that had overall organic scores and try to incorporate many of the same practices into the more mechanistic organizations.

Also, the feedback results indicate the Assessment Instrument was easy to use, understand, and did not take very long to complete. The following graphs represent the data from the Air Force responses. A scale of 1 to 5, with 1 being easiest and 5 difficult was used.

**Air Force Feedback
(Ease of Use/Understand)**
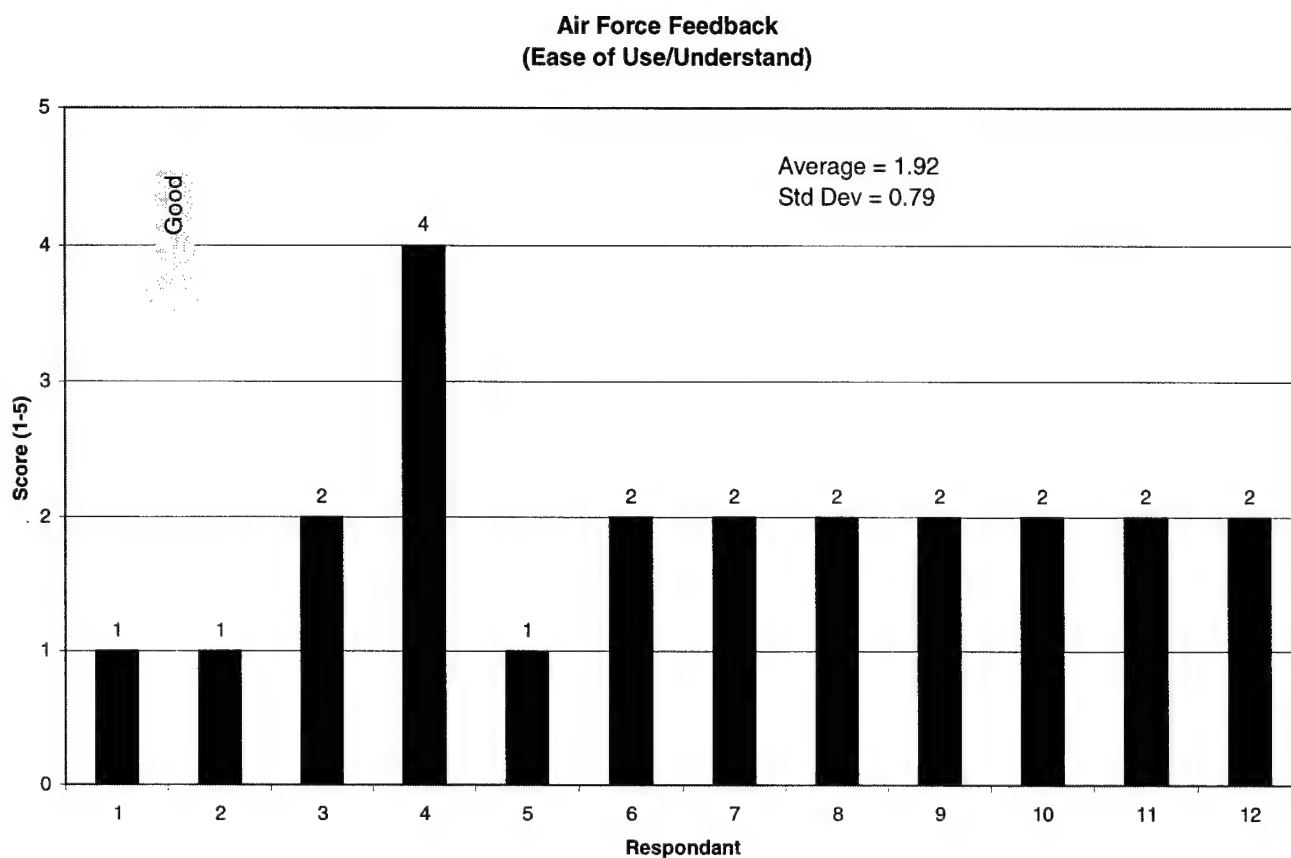
Figure 4. 3 Air Force Ease of Use/Understand

The average score for ease of use and understanding was 1.92. The range of scores was very tight with a standard deviation of only 0.79. The biggest concern that many of the respondents mentioned was not having the additional information to understand what the final numbers meant and what the assessment was supposed to measure. This information has been included in the final Assessment Instrument. It was determined from the results of the feedback that the goal of providing a simple and easy to understand instrument was met.

Figure 4.4 shows the results for the time to complete the Assessment Instrument. The average time to complete the assessment was just under 7.5 minutes. There was not a single assessment that took over 10 minutes to complete. This indicates that the goal of having a short and simple assessment was also met.

**Air Force
(Time to Complete)**
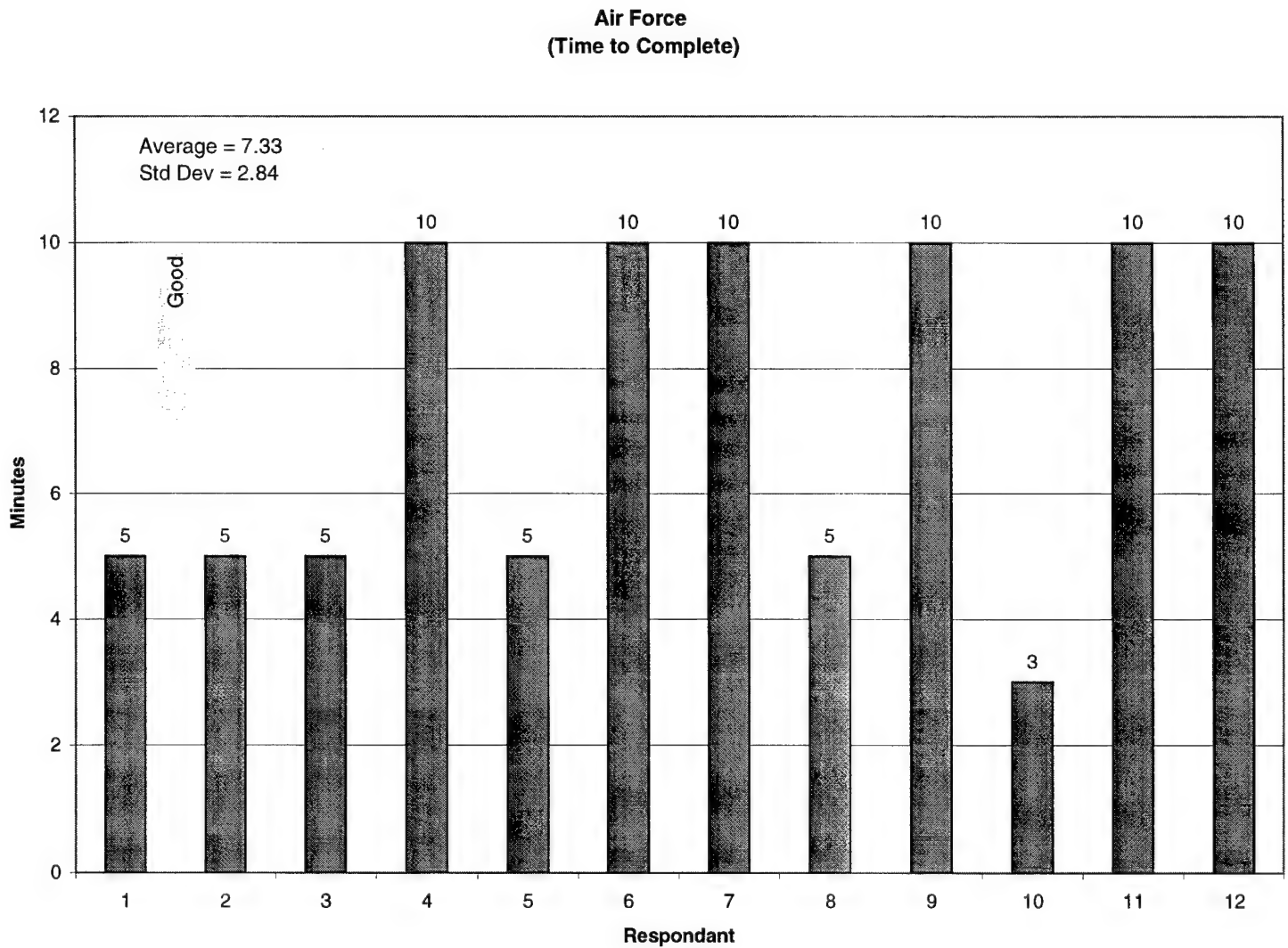
Figure 4. 4 Air Force Time to Complete

Finally, the last question asked the respondents to rate the their agreement that the scoring system was easy to use. A score of 5 indicated the system was not easy to use and a score of 1 indicated the system was very easy to use. The average score was 1.25, indicating that the respondents found the scoring system understandable and easy to use.

**Air Force
(Scoring System Ease)**
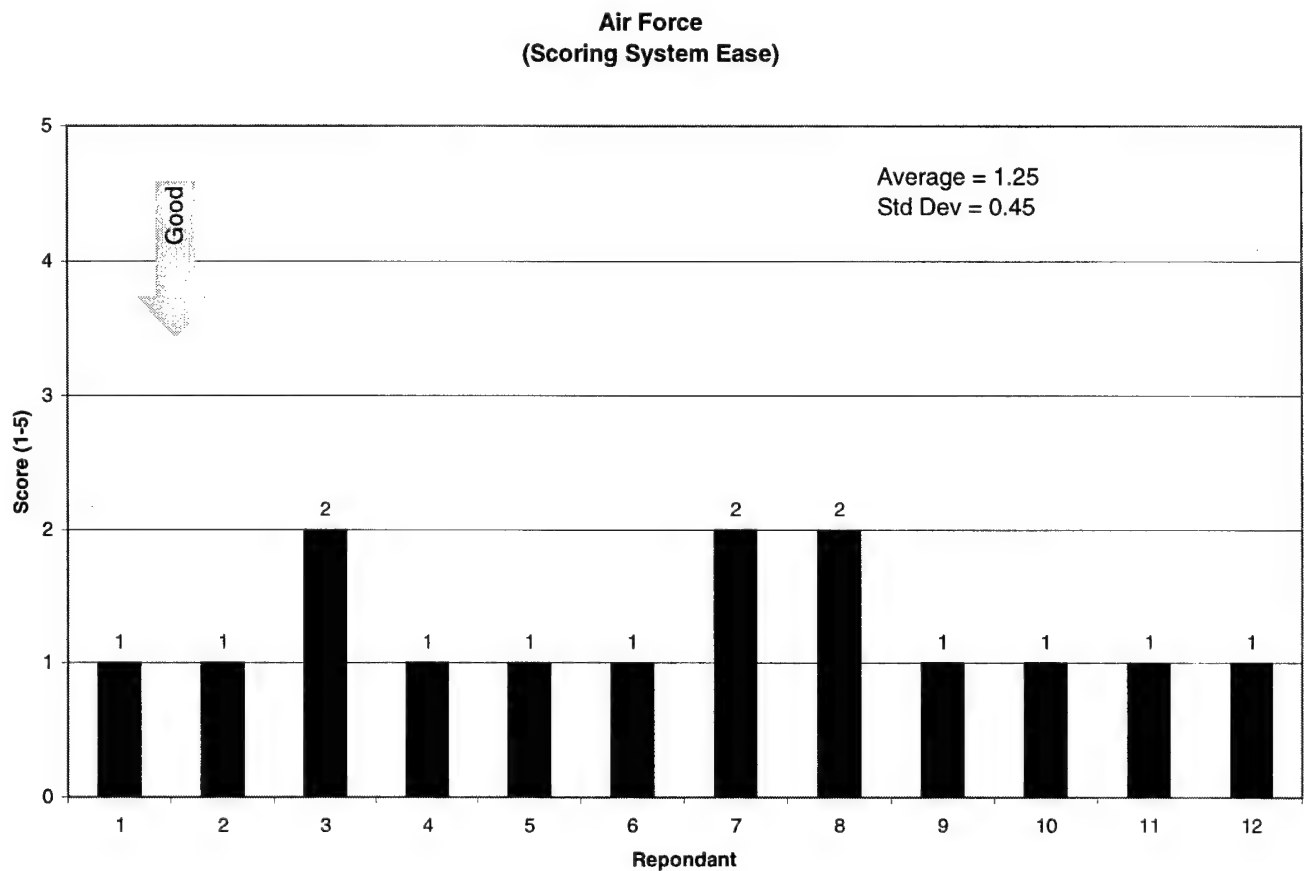
Figure 4. 5 Air Force Scoring System Ease

Parker-Hannifin personnel completed ten Assessment Instruments. There was a mix of both management and worker level employees.

Parker-Hannifin data

Response	1	2	3	4	5	6	7	8	9	10	Total
Organization Structure	0	-2	0	-1	1	1	-1	1	1	-1	**-1**
Access to Information	-1	-2	1	1	1	0	1	1	1	1	**4**
Communication	1	0	0	1	1	0	1	1	1	2	**8**
Reward System	0	0	0	0	0	0	1	0	1	1	**3**
Goal Setting/ Strategic Planning	0	1	1	0	0	1	1	1	1	1	**7**
Motivation Techniques	1	1	-1	1	1	1	1	1	1	1	**8**
Leadership Style	-1	1	-1	0	0	-1	0	2	0	2	**2**
Decision Making	-1	1	0	1	0	1	1	0	1	1	**5**
Control Systems	-1	0	0	-1	0	0	-1	-2	0	0	**-5**
Training/Education	-1	0	0	0	-1	0	0	-1	1	1	**-1**
Total	**-3**	**0**	**0**	**2**	**3**	**3**	**4**	**4**	**8**	**9**	**30**
Mean											**3**
Standard Deviation											**4**

Table 4. 2   Parker-Hannifin Results

From the results, the overall total Parker-Hannifin score is slightly positive. The average score was 3.00. This indicates that Parker-Hannifin tends to be organic as a whole. Also, the range of scores was very tight with a standard deviation of only 4. Figure 4.5 shows how the range of scores varied.

Parker-Hannifin
(Overall Score)
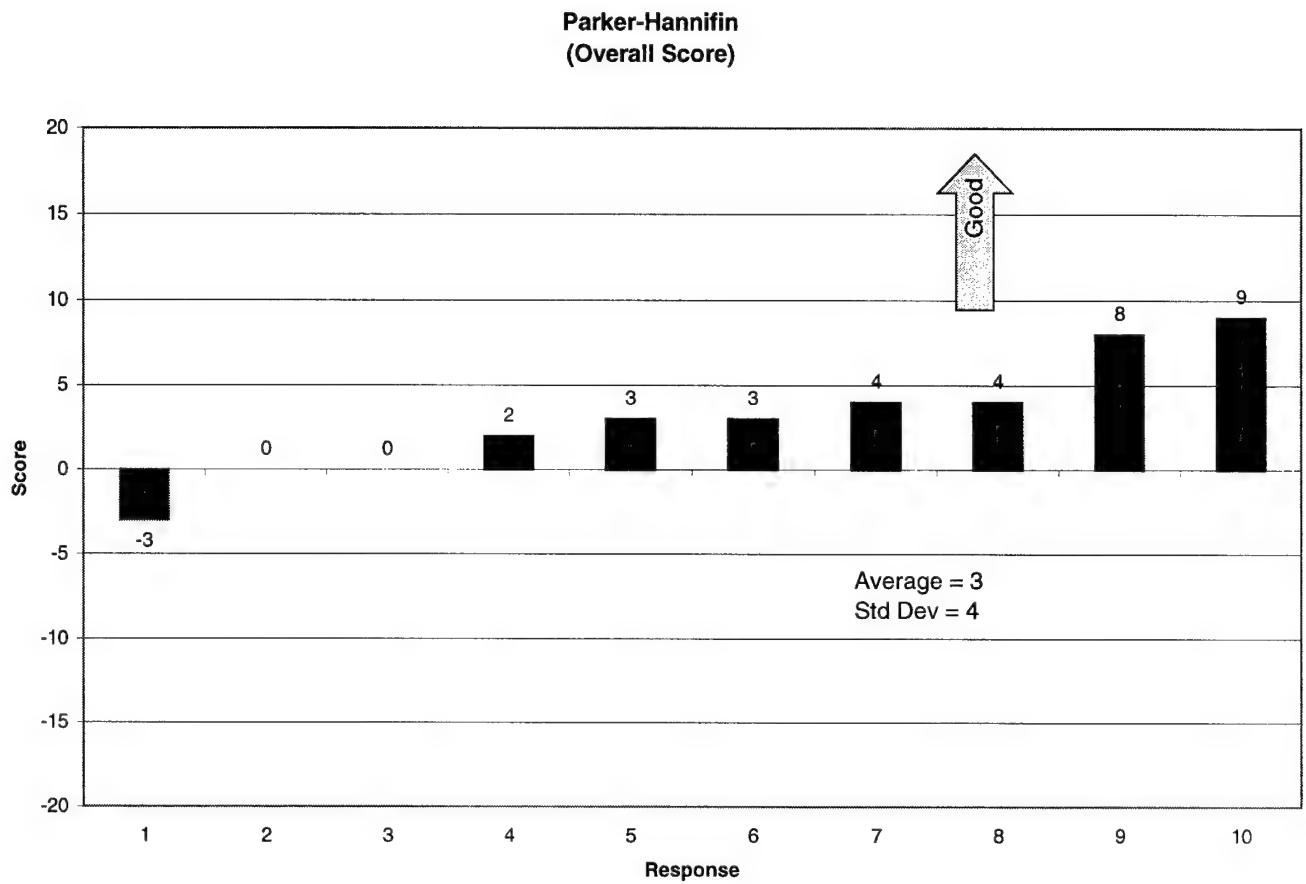
Figure 4. 6 Parker-Hannifin Ease of Use/Understand

After reviewing the total scores, the individual scores were ranked from most negative to most positive. Figure 4.7 indicates these results.

Parker-Hannifin
(Category Scores)
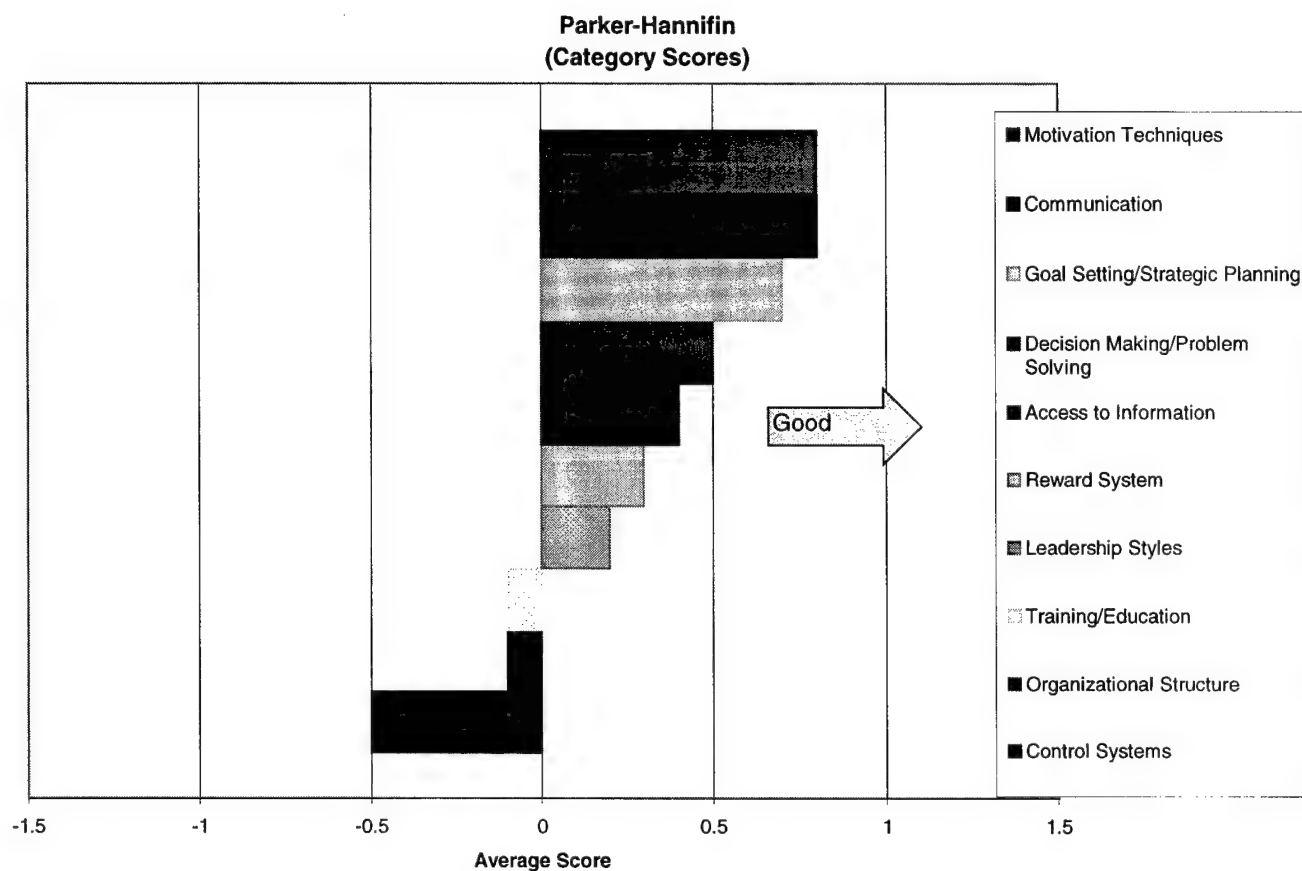
Figure 4. 7 Parker-Hannifin Average by Category

Based on the individual category average scores, there were only three categories that had a negative average score. These were: control systems, organizational structure, and training/education. These are the areas that Parker-Hannifin should focus on first for improvements.

The results from the follow-up questions regarding ease of understanding, time to complete and scoring system are in the following figures.

Parker-Hannifin
(Ease of Use)
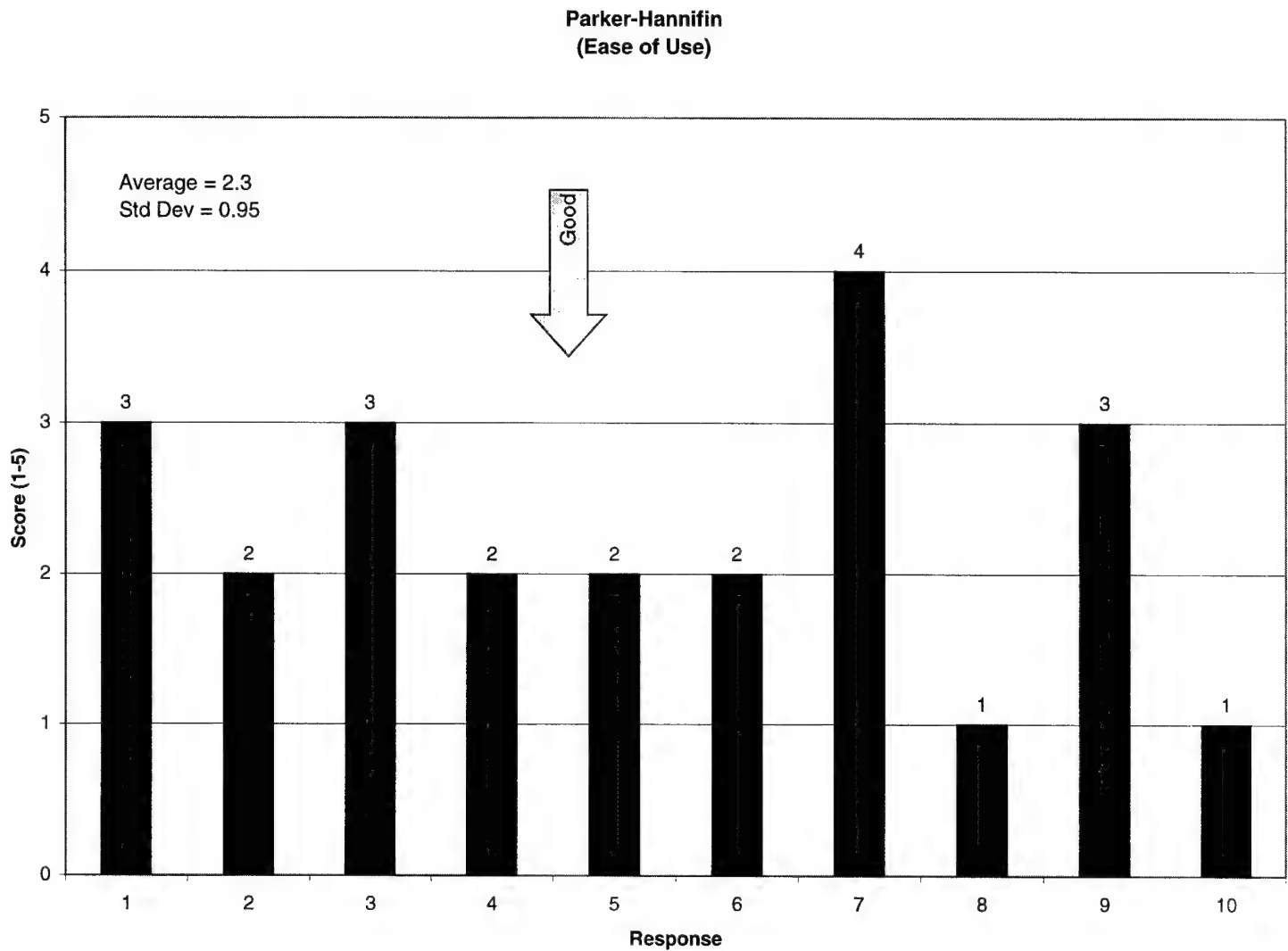
Figure 4. 8 Parker-Hannifin Ease of Use

The average score for this question was 2.3. This indicates that the personnel who completed the Assessment Instrument felt it was easy to use. The range of scores was also

fairly tight with a standard deviation of 0.95. This was slightly higher than the Air Force average of 1.92.

The average time to complete the Assessment Instrument is in Figure 4.9. The average time to complete was 8.80 minutes with a 3.88-minute standard deviation. Again these results were slightly higher than the Air Force average of 7.33. However, the average time is still well below ten minutes and there were only two people who took more than ten minutes to complete. Again, the goal of a short and quick Assessment Instrument was met.

Parker-Hannifin
(Time to Complete)
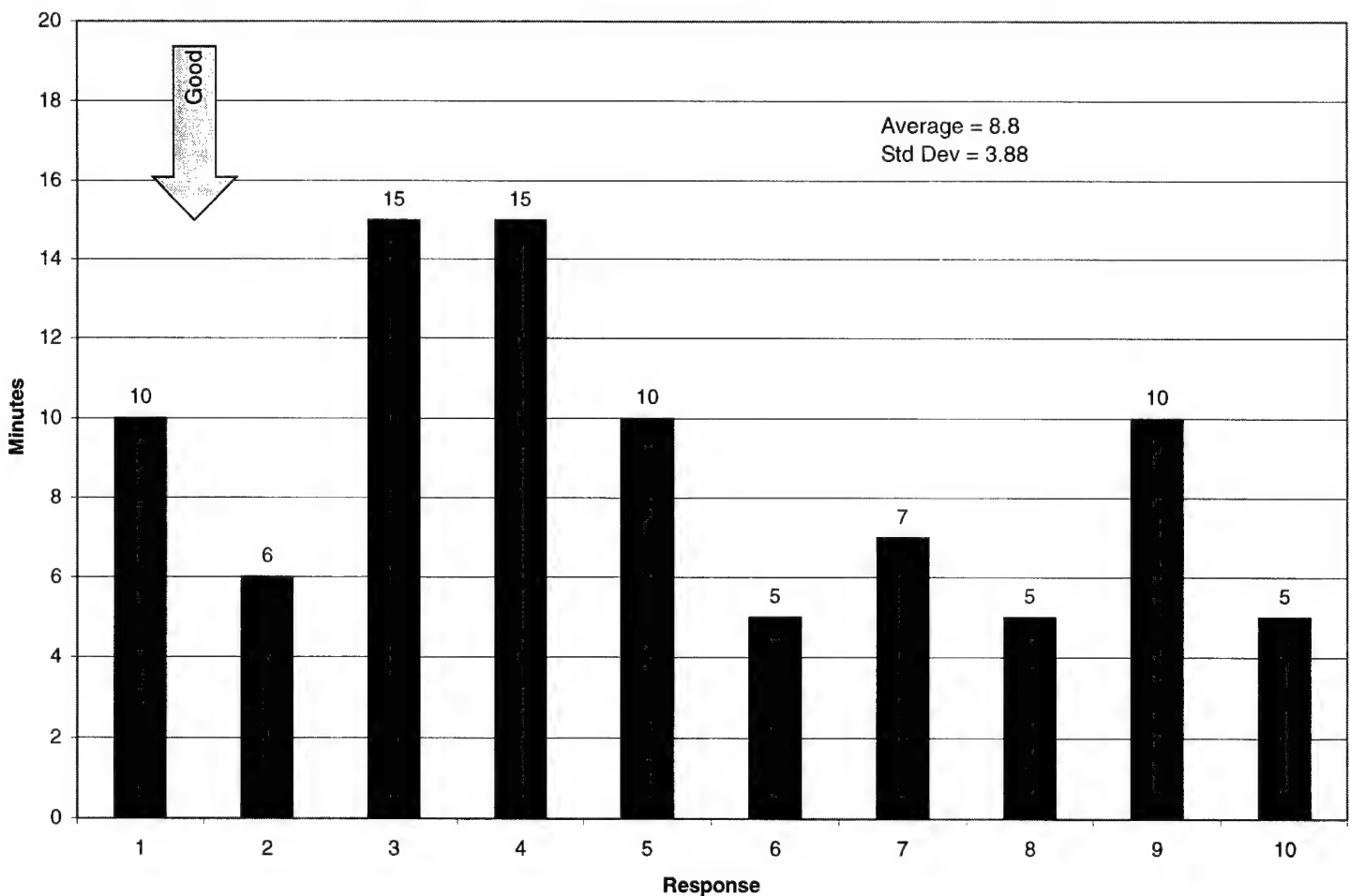
Figure 4. 9 Parker-Hannifin Time to Complete

The final feedback area of scoring ease is shown in Figure 4.10. The average score for this response was 2.3. Again this is slightly higher than the Air Force average of 1.25, but still indicates the scoring system was easy to use. As with the Air Force comments, most were curious to what the numbers meant.

**Parker-Hannifin
(Ease of Scoring)**
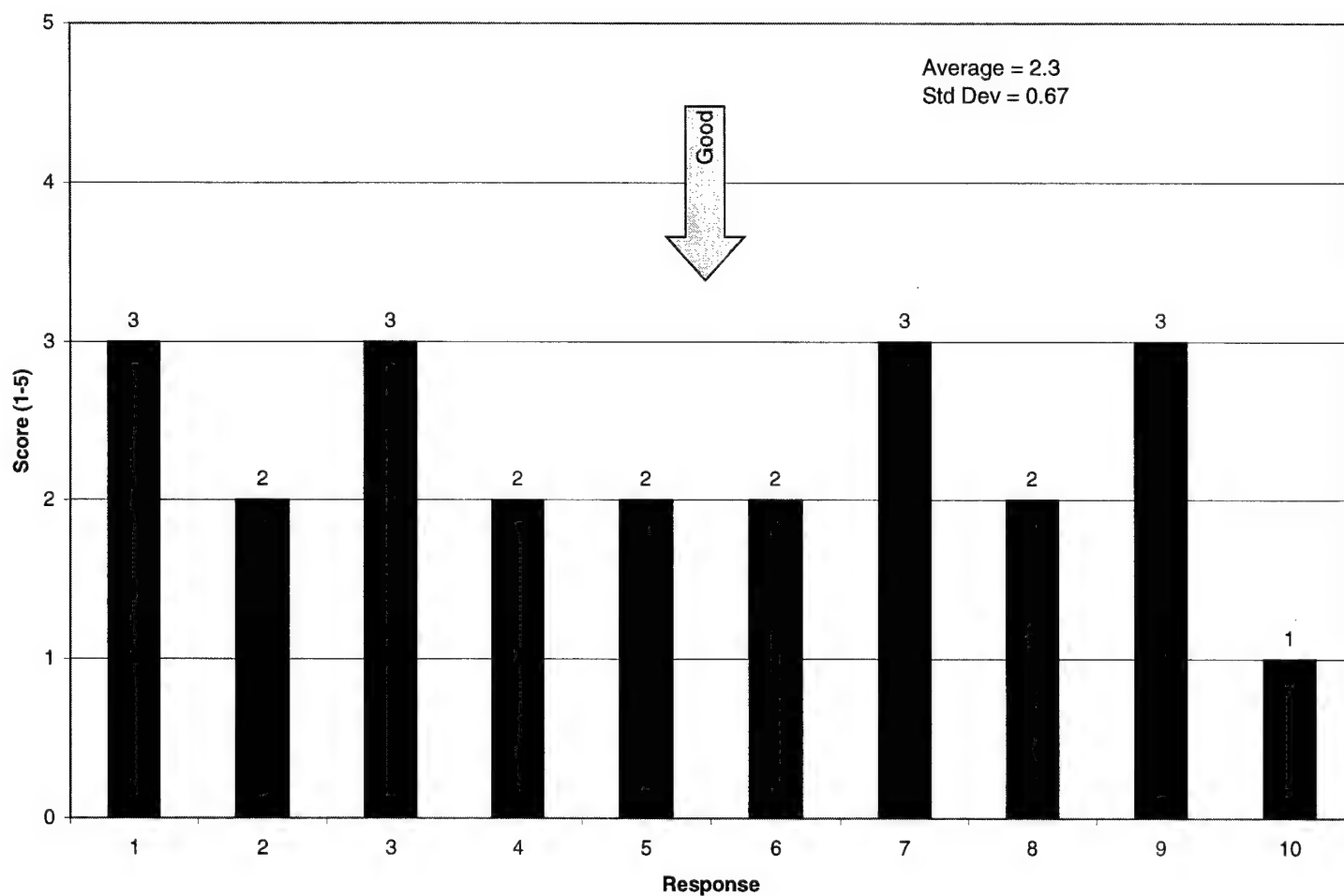
Figure 4. 10 Parker-Hannifin Ease of Scoring

Chapter 5

DISCUSSION AND RECOMMENDATIONS

A.   Discussion

It was quite obvious from the results that the Air Force and Parker-Hannifin were operating at different ends of the organic and mechanistic spectrum. While the average scores for the two organizations did not differ very much, (Air Force –2.5, Parker-Hannifin +3) there is a clear difference in the two organizations based on the Assessment Instrument results. While the limited data from both organizations cannot completely describe these large organizations, the results do show trends in certain areas and provide a starting point for further review. This is the intent of this Assessment Instrument. Both the Air Force and Parker-Hannifin have areas of improvement that need further exploration and this Assessment Instrument provided a solid framework.

The Assessment Instrument is an excellent tool for organizations to use to quickly evaluate an organization and provide a reference point for future review.

There is one factor that can affect the results of the Assessment Instrument. The "organization" needs to be very clearly defined prior to the Assessment Instrument being complete. For the Air Force, the organization could be the entire Air Force, a particular Wing (individual base), Group, Squadron or work unit. The results would be different if the organization is defined differently. It is important that an organization clearly defines what " organization" means and computes the results accordingly.

B.   Conclusions

Overall, the Assessment Instrument fulfilled all the goals set forth in the CAPSTONE Project. Based on the results from both groups of the validation study, the Assessment Instrument was rated as easy to use and understand, did not take long to complete, and the scoring was simple to use and understand.

The Assessment Instrument also provided an accurate assessment for the two groups studied. The initial findings of this project are very positive and additional research with this Assessment Instrument is warranted.

C.   Recommendations

The initial findings from the validation study provide a baseline of data to begin a complete validation of the Assessment Instrument. Further studies with a larger sample size are necessary to completely validate the Assessment Instrument. This Assessment Instrument should be used in conjunction with other Engineering Management courses with students obtaining results from a wide range of organizations to also help validate the Assessment Instrument. This Assessment Instrument would helpful in Engineering Management (EM) 660, Introduction to Engineering Management Theory to clearly understand how In Search of Excellence traits could be defined in terms of organic and mechanistic properties. Also, the Assessment Instrument should be used in Engineering Management (EM) 760, Organization Structure and Motivation, as team projects or case studies. Again, this Assessment Instrument would describe the motivational and organizational structure theories in terms of organic and mechanistic properties while providing more validation results.

Fellow students for thesis and dissertation work could use this Assessment Instrument to help describe an organization in terms of organic and mechanistic principles. The additional data from using this Assessment Instrument in other coursework and research will provide a better validation of the Assessment Instrument as well as identify other areas needing evaluation. The follow-up validation and reevaluation of the Assessment Instrument could also be used as another Capstone or thesis project. This Assessment Instrument is also designed to have a "living scale". As organizations change the way they do business, the relative scale of what represents organic and mechanistic behavior will also change. Additional research to track various companies to determine how organic the best companies in the world are for comparison would also be possible for further research.

APPENDICES

APPENDIX A

Sample Assessment Instrument-Validation Study

ASSESSMENT INSTRUMENT

ACADEMIC DISCLAIMER:

The following Assessment Instrument will be used strictly for academic purposes. This Assessment Instrument is for partial fulfillment of a Master's Degree in Engineering Management at the University of Alabama-Huntsville. All results will be kept strictly confidential.

PURPOSE:

This Assessment Instrument is designed to evaluate an organization in 10 different categories to determine areas needing improvement and the overall working conditions of the organization.

INSTRUCTIONS:

Select the **ONE BEST** answer (A, B, C, D, E) for the 10 Categories listed on page 2 which best describes your organization. All of the comments for a given response are not required in order for selection.

Place all of your responses on the Scoring sheet on page 3 after completing the assessment and follow the scoring directions.

Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____Middle Management_____   First Level Management_____

First Level Supervisor _____Worker Level_____

ORGANIZATION_____
NAME-
(Optional)_____

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

Select the **ONE BEST** response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy Large Matrix Large Functional # employees>500	Large Divisional # employees>500	Medium Matrix Medium Functional 500># employees>250	Medium Divisional 500># employees>250	Small Small Divisional Team Based/Adhocracy # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None Employees Kept in Dark	Mostly Formal Mostly Vertical Downward Directed Closed/Hidden Agenda Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal Mostly Horizontal Usually All Directional Usually Open/Honest Usually Loose Chain of command	Always Informal Always Horizontal All Directional Always Open/Honest Always Loose Chain of command
Reward System	None Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance Profit Sharing	Some team rewards and some individual rewards Risk Taking Tolerated	Teams rewarded for team/company success Innovation Rewarded Gainsharing
Goal Setting/ Strategic Planning	None Reactionary Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement	Team developed and implemented goals/plans
Motivation Techniques	Fear No Motivation at all	Work Benefits Working Conditions Job Security	Financial Rewards Management by objectives	Awards Job Titles Profit Sharing Quality Circles	Recognition/Authority Responsibility Growth/Advancement Gainsharing
Leadership Style	Authoritative Production Only Oriented Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative People Oriented Listens to Workers
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue	Mostly decentralized decision making/problem solving	Local decisions/problems solving
Control Systems	Policy Manuals Rules & Regulations Management implemented	Adheres to Plans & Budgets	Combination of controls listed	Total Quality Mgmt Statistical Process Control	Peer/team based controls Organizational values Culture
Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure		
Access to Information		
Communications		
Reward System		
Goal Setting/ Strategic Planning		
Motivation Techniques		
Leadership Style		
Decision Making/ Problem Solving		
Control Systems		
Training		
Sum Total Score for all Categories		

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree2=Agree3=Neutral4=Disagree5=Strongly Disagree

---

1. The Assessment was easy to understand and use   **1   2   3   4   5**

Comments:

---

2. How long did it take you to complete the assessment?_____

Comments:

---

3. The scoring system was easy to understand & calculate.**1   2   3   4   5**

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

APPENDIX B

Data from Validation Study-U.S Air Force

ASSESSMENT INSTRUMENT

ACADEMIC DISCLAIMER:

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PURPOSE:

This Assessment Instrument is designed to evaluate an organization in 10 different categories to determine areas needing improvement and the overall working conditions of the organization.

INSTRUCTIONS:

Select the **ONE BEST** answer (A, B, C, D, E) for the 10 Categories listed on page 2 which best describes your organization. All of the comments for a given response are not required in order for selection.

Place all of your responses on the Scoring sheet on page 3 after completing the assessment and follow the scoring directions.

Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   Middle Management_____   First Level Management___X__

First Level Supervisor_____   Worker Level (non-supervisory)_____

ORGANIZATION__Headquarters, Air Force Civil Engineer Support Agency_____

NAME- (Optional)_____Rich Thuma_____

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

1

Select the **ONE BEST** response for each category that best describes your organization.

Category	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Organizational Structure					**E**
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information **D**	Total access to information
Communication	Little/None Employees Kept in Dark	Mostly Formal Mostly Vertical Downward Directed Closed/Hidden Agenda Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal Mostly Horizontal Usually All Directional Usually Open/Honest Usually Loose Chain of command **D**	Always Informal Always Horizontal All Directional Always Open/Honest Always Loose Chain of command
Reward System	None Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance Profit Sharing	Some team rewards and some individual rewards Risk Taking Tolerated **D**	Teams rewarded for team/company success Innovation Rewarded Gainsharing
Goal Setting/ Strategic Planning	None Reactionary Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement **D**	Team developed and implemented goals/plans **E**
Motivation Techniques	Fear No Motivation at all	Work Benefits Working Conditions Job Security	Financial Rewards Management by objectives	Awards Job Titles Profit Sharing Quality Circles **D**	Recognition/Authority Responsibility Growth/Advancement Gainsharing **E**
Leadership Style	Authoritative Production Only Oriented Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations **C**	Mgr Delegates Actions	Participative People Oriented Listens to Workers **E**
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue **C**	Mostly decentralized decision making/ problem solving **D**	Local decisions/problems solving
Control Systems	Policy Manuals Rules & Regulations Management implemented	Adheres to Plans & Budgets	Combination of controls listed **C**	Total Quality Mgmt Statistical Process Control	Peer/team based controls Organizational values culture
Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education **C**	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	E	2
Access to Information	D	1
Communications	D	1
Reward System	D	1
Goal Setting/ Strategic Planning	E	2
Motivation Techniques	E	2
Leadership Style	C	0
Decision Making/ Problem Solving	D	1
Control Systems	C	0
Training	C	0
Sum Total Score for all Categories		10

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

---

1. The Assessment was easy to understand and use.   1   2   3   4   5
        2

Comments: Understand: I don't know all the management lingo. Made it a little difficult to interpret some questions.

---

2. How long did it take you to complete the assessment?   _____
        10 minutes

Comments: Good. Not too long.

---

3. The scoring system was easy to understand & calculate. 1   2   3   4   5
        1

Comments:Simple

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

Was this Air Force only? Were we supposed to know the purpose of the survey?

ASSESSMENT INSTRUMENT

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Place all of your responses on the Scoring sheet on page 3 after completing the assessment and follow the scoring directions.

Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   Middle Management__X__ First Level Management_____

First Level Supervisor _____   Worker Level (non-supervisory)_____

ORGANIZATION__U.S. Air Force _____

NAME- (Optional)_____Chuck Aukland_____

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

Select the ONE BEST response for each category that best describes your organization.

Category	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Organizational Structure	Bureaucracy, Large Matrix, Large Functional, # employees>500	Large Divisional, # employees>500	Medium Matrix, Medium Functional, 500># employees>250	Medium Divisional, 500># employees>250	Small, Small Divisional, Team Based/Adhocracy, # employees<250 **E**
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None, Employees Kept in Dark	Mostly Formal, Mostly Vertical, Downward Directed, Closed/Hidden Agenda, Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal, Mostly Horizontal, Usually All Directional, Usually Open/Honest, Usually Loose Chain of command **D**	Always Informal, Always Horizontal, All Directional, Always Open/Honest, Always Loose Chain of command
Reward System	None, Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance, Profit Sharing	Some team rewards and some individual rewards, Risk Taking Tolerated **D**	Teams rewarded for team/company success, Innovation Rewarded, Gainsharing
Goal Setting/ Strategic Planning	None, Reactionary, Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement **D**	Team developed and implemented goals/plans **E**
Motivation Techniques	Fear, No Motivation at all	Work Benefits, Working Conditions, Job Security	Financial Rewards, Management by objectives	Awards, Job Titles, Profit Sharing, Quality Circles **D**	Recognition/Authority, Responsibility, Growth/Advancement, Gainsharing **E**
Leadership Style	Authoritative, Production Only Oriented, Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations **C**	Mgr Delegates Actions	Participative, People Oriented, Listens to Workers **E**
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue	Mostly decentralized decision making/ problem solving **D**	Local decisions/problems solving
Control Systems	Policy Manuals, Rules & Regulations, Management implemented	Adheres to Plans & Budgets	Combination of controls listed **C**	Total Quality Mgmt, Statistical Process Control **D**	Peer/team based controls, Organizational values culture
Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education **C**	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	C	0
Access to Information	D	1
Communications	C	0
Reward System	D	1
Goal Setting/ Strategic Planning	A	-2
Motivation Techniques	D	1
Leadership Style	A	-2
Decision Making/ Problem Solving	C	0
Control Systems	A	-2
Training	C	0
Sum Total Score for all Categories		-1

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   **1**   **2**   **3**   **4**   **5**
        2
Comments:

2. How long did it take you to complete the assessment?   _____
        5 minutes

Comments:

3. The scoring system was easy to understand & calculate. 1   **2**   **3**   **4**   **5**
        2

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   Middle Management__X__ First Level Management_____

First Level Supervisor _____   Worker Level (non-supervisory)_____

ORGANIZATION__U.S. Air Force _____

NAME- (Optional)_____

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

Select the **ONE BEST** response for each category that best describes your organization.

Category					
Organizational Structure	Bureaucracy Large Matrix Large Functional # employees>500	Large Divisional # employees>500	Medium Matrix Medium Functional 500># employees>250	Medium Divisional 500># employees>250	Small Small Divisional Team Based/Adhocracy # employees<250 **E**
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information **D**	Total access to information
Communication	Little/None Employees Kept in Dark	Mostly Formal Mostly Vertical Downward Directed Closed/Hidden Agenda Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal Mostly Horizontal Usually All Directional Usually Open/Honest Usually Loose Chain of command **D**	Always Informal Always Horizontal All Directional Always Open/Honest Always Loose Chain of command
Reward System	None Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance Profit Sharing **C**	Some team rewards and some individual rewards Risk Taking Tolerated **D**	Teams rewarded for team/company success Innovation Rewarded Gainsharing
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Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education **C**	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	A	-2
Access to Information	B	-1
Communications	C	0
Reward System	C	0
Goal Setting/ Strategic Planning	A	-2
Motivation Techniques	A	-2
Leadership Style	C	0
Decision Making/ Problem Solving	B	-1
Control Systems	A	-2
Training	B	-1
Sum Total Score for all Categories		-11

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

---

1. The Assessment was easy to understand and use.   **1   2   3   4   5**
   2
Comments:

---

2. How long did it take you to complete the assessment?   _____
   5 minutes

Comments:

---

3. The scoring system was easy to understand & calculate. **1   2   3   4   5**
   2

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

ASSESSMENT INSTRUMENT

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Upper Management_____ **Middle Management__X__ First Level Management**_____

First Level Supervisor _____ **Worker Level (non-supervisory)**_____

ORGANIZATION__U.S. Air Force Aviano Air Base Italy_____

NAME- (Optional)_____Dave Wilder_____

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

1

Select the ONE BEST response for each category that best describes your organization.

Category	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250 **E**
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None / Employees Kept in Dark	Mostly Formal / Mostly Vertical / Downward Directed / Closed/Hidden Agenda / Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal / Mostly Horizontal / Usually All Directional / Usually Open/Honest / Usually Loose Chain of command **D**	Always Informal / Always Horizontal / All Directional / Always Open/Honest / Always Loose Chain of command
Reward System	None / Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance / Profit Sharing	Some team rewards and some individual rewards / Risk Taking Tolerated **D**	Teams rewarded for team/company success / Innovation Rewarded / Gainsharing
Goal Setting/ Strategic Planning	None / Reactionary / Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement **D**	Team developed and implemented goals/plans
Motivation Techniques	Fear / No Motivation at all	Work Benefits / Working Conditions / Job Security	Financial Rewards / Management by objectives	Awards / Job Titles / Profit Sharing / Quality Circles	Recognition/Authority / Responsibility / Growth/Advancement / Gainsharing **E**
Leadership Style	Authoritative / Production Only Oriented / Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations **C**	Mgr Delegates Actions	Participative / People Oriented / Listens to Workers **E**
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue	Mostly decentralized decision making/ problem solving **D**	Local decisions/problems solving
Control Systems	Policy Manuals / Rules & Regulations / Management implemented	Adheres to Plans & Budgets	Combination of controls listed **C**	Total Quality Mgmt / Statistical Process Control	Peer/team based controls / Organizational values culture
Training/ Education	None	Only Job Related / Management Selected / Training/education	Manager & Worker Selected training/education **C**	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related / Employee Selected training/education

SCORING SYSTEM:

   Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	E	+2
Access to Information	D	+1
Communications	D	+1
Reward System	B	-1
Goal Setting/ Strategic Planning	D	+1
Motivation Techniques	D	+1
Leadership Style	C	0
Decision Making/ Problem Solving	D	+1
Control Systems	C	0
Training	C	0
Sum Total Score for all Categories		**+6**

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   1   **2**   3   4   5

Comments: I think it would be easier to solicit feedback in the different areas and then you can rate the results ... not sure guessing which letter is clear enough to give good statistical results.

2. How long did it take you to complete the assessment?   3 minutes

Comments: Easy to do, duration was not a detractor

3. The scoring system was easy to understand & calculate. **1**   2   3   4   5

Comments: I got the math!

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

When I take something that in a nutshell describes where I work I am ambivalent that change will be forthcoming. If there was an added category listing what (if any) changes I would like to make I would feel that if enough of my peers (fellow survey takers) felt the same a new policy might appear and life would be better. As it is the only "help" this information might show would be leadership trends which by the time they are charted are outdated.

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Place all of your responses on the Scoring sheet on page 3 after completing the assessment and follow the scoring directions.

Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   Middle Management__x__First Level Management_____

First Level Supervisor_____   Worker Level (non-supervisory)_____

ORGANIZATION_____USAir Force___

**NAME-
(Optional)_____Scooter_____**

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1

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500 **(A)**	Large Divisional / # employees>500 **(B)**	Medium Matrix / Medium Functional / 500># employees>250 **(Cx)**	Medium Divisional / 500># employees>250 **(D)**	Small / Small Divisional / Team Based/Adhocracy / # employees<250 **(E)**
Access to Information	Restricted access to information **(A)**	Minimal access to information **(B)**	Some access to information **(Cx)**	Access to most information **(D)**	Total access to information **(E)**
Communication	Little/None / Employees Kept in Dark **(A)**	Mostly Formal / Mostly Vertical / Downward Directed / Closed/Hidden Agenda / Rigid Chain of Command **(B)**	Sometimes formal/informal depending on situation **(Cx)**	Mostly Informal / Mostly Horizontal / Usually All Directional / Usually Open/Honest / Usually Loose Chain of command **(D)**	Always Informal / Always Horizontal / All Directional / Always Open/Honest / Always Loose Chain of command **(E)**
Reward System	None / Punish for Risk Taking **(A)**	Individual rewards for individual performance **(Bx)**	Individual rewards for team/company performance / Profit Sharing **(C)**	Some team rewards and some individual rewards / Risk Taking Tolerated **(D)**	Teams rewarded for team/company success / Innovation Rewarded / Gainsharing **(E)**
Goal Setting/Strategic Planning	None / Reactionary / Day to Day **(A)**	All goals/plans issued from top management with no worker involvement **(B)**	Most goals/plans issued from top management with little/no worker involvement **(Cx)**	Goals/plans developed with some worker involvement **(D)**	Team developed and implemented goals/plans **(E)**
Motivation Techniques	Fear / No Motivation at all **(A)**	Work Benefits / Working Conditions / Job Security **(Bx)**	Financial Rewards / Management by objectives **(C)**	Awards / Job Titles / Profit Sharing / Quality Circles **(D)**	Recognition/Authority / Responsibility / Growth/Advancement / Gainsharing **(E)**
Leadership Style	Authoritative / Production Only Oriented / Mgr Directs Actions **(Ax)**	Mgr sells tasks to workers **(B)**	Situational-different Styles for various situations **(C)**	Mgr Delegates Actions **(D)**	Participative / People Oriented / Listens to Workers **(E)**
Decision Making Problem Solving	All decisions/ problems solved at top **(A)**	Mostly centralized decision making/ problem solving **(Bx)**	Some centralized & some decentralized depending on issue **(C)**	Mostly decentralized decision making/ problem solving **(D)**	Local decisions/problems solving **(E)**
Control Systems	Policy Manuals / Rules & Regulations / Management implemented **(Ax)**	Adheres to Plans & Budgets **(B)**	Combination of controls listed **(C)**	Total Quality Mgmt / Statistical Process Control **(D)**	Peer/team based controls / Organizational values culture **(E)**
Training/Education	None **(A)**	Only Job Related / Management Selected Training/education **(B)**	Manager & Worker Selected training/education **(C)**	Some non-direct job related Worker & Mgr Selected training/education **(Dx)**	Non-Direct Job Related Employee Selected training/education **(E)**

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	c	0
Access to Information	c	0
Communications	b	-1
Reward System	b	-1
Goal Setting/ Strategic Planning	c	0
Motivation Techniques	b	-1
Leadership Style	a	-2
Decision Making/ Problem Solving	b	-1
Control Systems	a	-2
Training	d	1
Sum Total Score for all Categories		-7

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   **1   2   3   4   5**

Comments: 4 having to scroll back up and down (from p2 to p3) to fill in page three was not easy to use

2. How long did it take you to complete the assessment?   _____10 min_____

Comments:

3. The scoring system was easy to understand & calculate. **1   2   3   4   5**

Comments:
The scoring system was easy to use but doesn't tell me anything about where I work

Please provide any other appropriate comments regarding the assessment instrument.

4

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Place all of your responses on the Scoring sheet on page 3 after completing the assessment and follow the scoring directions.

Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   Middle Management__X__ First Level Management_____

First Level Supervisor _____   Worker Level (non-supervisory)_____

ORGANIZATION_____USAF_____

NAME- (Optional)_____Scott Grainger_____

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1

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
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SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	A	-2
Access to Information	C	0
Communications	C	0
Reward System	B	-1
Goal Setting/ Strategic Planning	B	-1
Motivation Techniques	A	-2
Leadership Style	C	0
Decision Making/ Problem Solving	C	0
Control Systems	C	0
Training	C	0
Sum Total Score for all Categories		**-6**

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

---

1. The Assessment was easy to understand and use.   **1   2   3   4   5**

Comments: Lots of fun Frank

---

2. How long did it take you to complete the assessment?   <u>5 Minutes</u>
Comments:

---

3. The scoring system was easy to understand & calculate. **1   2   3   4   5**

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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Upper Management_____ **Middle Management**___X **First Level Management**_____

First Level Supervisor_____ **Worker Level (non-supervisory)**_____

ORGANIZATION_____**HQ AMC/CE**_____

NAME- (Optional)_____

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1

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
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Training/ Education	None	Only Job Related / Management Selected / Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related / Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	D	1
Access to Information	D	1
Communications	C	0
Reward System	D	1
Goal Setting/ Strategic Planning	D	1
Motivation Techniques	E	2
Leadership Style	C	0
Decision Making/ Problem Solving	C	0
Control Systems	C	0
Training	B	-1
Sum Total Score for all Categories		5

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree · 2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   **1   2   3   4   5**
       2

Comments:
Need to clarify the scope of the organization we were to score, i.e.: the entire company as a whole or just your individual branch.

2. How long did it take you to complete the assessment?   _____

 <10 mins
Comments:

3. The scoring system was easy to understand & calculate. **1   2   3   4   5**
1

Comments:
Although the scoring was very simple to use and understand, what does the overall scoring mean?

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OVERALL COMMENTS

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First Level Supervisor _____ **Worker Level (non-supervisory)**_____

ORGANIZATION_____

NAME- (Optional)_____

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Select the ONE BEST response for each category that best describes your organization.

	A	B	C	D	E
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     Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

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Organizational Structure	A	-2
Access to Information	C	0
Communications	C	0
Reward System	C	0
Goal Setting/ Strategic Planning	C	0
Motivation Techniques	D	+1
Leadership Style	C	0
Decision Making/ Problem Solving	B	-1
Control Systems	A	-2
Training	D	+1
Sum Total Score for all Categories		-3

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

---

1. The Assessment was easy to understand and use.   **1   2   3   4   5**
    2
Comments:

---

2. How long did it take you to complete the assessment?   _____
    10 MINUTES

Comments:

---

3. The scoring system was easy to understand & calculate. **1   2   3   4   5**
    2

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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First Level Supervisor _____ **Worker Level (non-supervisory)**_____

ORGANIZATION_____**USAF**_____

NAME- (Optional)___**Tom Walker**_____

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FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   X1   2   3   4   5

Comments: Good, should have had the score box on the same page as the questions.

2. How long did it take you to complete the assessment?   _____5 min_____

Comments: Quick and to the point.

3. The scoring system was easy to understand & calculate. 1X   2   3   4   5

Comments: Vick, Andy, or Dom could have figured this one out!

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Place all of your responses on the Scoring sheet on page 3 after completing the assessment and follow the scoring directions.

Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____ **Middle Management**_____ **First Level Management**_____

First Level Supervisor _____ **Worker Level (non-supervisory)__X___**

ORGANIZATION__Headquarters Air Force Center for Environmental Excellence

NAME- (Optional)__Wade J. Rawlins

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

Select the **ONE BEST** response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy Large Matrix Large Functional # employees>500	Large Divisional # employees>500	Medium Matrix Medium Functional 500># employees>250	Medium Divisional 500># employees>250	Small Small Divisional Team Based/Adhocracy # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None Employees Kept in Dark	Mostly Formal Mostly Vertical Downward Directed Closed/Hidden Agenda Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal Mostly Horizontal Usually All Directional Usually Open/Honest Usually Loose Chain of command	Always Informal Always Horizontal All Directional Always Open/Honest Always Loose Chain of command
Reward System	None Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance Profit Sharing	Some team rewards and some individual rewards Risk Taking Tolerated	Teams rewarded for team/company success Innovation Rewarded Gainsharing
Goal Setting/ Strategic Planning	None Reactionary Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement	Team developed and implemented goals/plans
Motivation Techniques	Fear No Motivation at all	Work Benefits Working Conditions Job Security	Financial Rewards Management by objectives	Awards Job Titles Profit Sharing Quality Circles	Recognition/Authority Responsibility Growth/Advancement Gainsharing
Leadership Style	Authoritative Production Only Oriented Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative People Oriented Listens to Workers
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue	Mostly decentralized decision making/ problem solving	Local decisions/problems solving
Control Systems	Policy Manuals Rules & Regulations Management implemented	Adheres to Plans & Budgets	Combination of controls listed	Total Quality Mgmt Statistical Process Control	Peer/team based controls Organizational values culture
Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

<u>SCORING SYSTEM:</u>

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

<u>Assessment Instrument Results & Score</u>

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	C	0
Access to Information	E	2
Communications	D	1
Reward System	D	1
Goal Setting/ Strategic Planning	D	1
Motivation Techniques	D	1
Leadership Style	C	0
Decision Making/ Problem Solving	D	1
Control Systems	C	0
Training	D	1
Sum Total Score for all Categories		8

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

---

1. The Assessment was easy to understand and use.   **1   2   3   4   5**

Comments: Good survey. User friendly.

---

2. How long did it take you to complete the assessment?   10 minutes

Comments:

---

3. The scoring system was easy to understand & calculate. **1   2   3   4   5**

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____ **Middle Management**_____ **First Level Management**_____

First Level Supervisor_____ **Worker Level (non-supervisory)** _X_

ORGANIZATION___USAF_____

NAME- (Optional)_____

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1

Select the **ONE BEST** response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None / Employees Kept in Dark	Mostly Formal / Mostly Vertical / Downward Directed / Closed/Hidden Agenda / Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal / Mostly Horizontal / Usually All Directional / Usually Open/Honest / Usually Loose Chain of command	Always Informal / Always Horizontal / All Directional / Always Open/Honest / Always Loose Chain of command
Reward System	None / Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance / Profit Sharing	Some team rewards and some individual rewards / Risk Taking Tolerated	Teams rewarded for team/company success / Innovation Rewarded / Gainsharing
Goal Setting/ Strategic Planning	None / Reactionary / Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement	Team developed and implemented goals/plans
Motivation Techniques	Fear / No Motivation at all	Work Benefits / Working Conditions / Job Security	Financial Rewards / Management by objectives	Awards / Job Titles / Profit Sharing / Quality Circles	Recognition/Authority / Responsibility / Growth/Advancement / Gainsharing
Leadership Style	Authoritative / Production Only Oriented / Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative / People Oriented / Listens to Workers
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue	Mostly decentralized decision making/ problem solving	Local decisions/problems solving
Control Systems	Policy Manuals / Rules & Regulations / Management implemented	Adheres to Plans & Budgets	Combination of controls listed	Total Quality Mgmt / Statistical Process Control	Peer/team based controls / Organizational values culture
Training/ Education	None	Only Job Related / Management Selected / Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related / Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	RESPONSE	SCORE
Organizational Structure	A	-2
Access to Information	C	O
Communications	B	-1
Reward System	D	1
Goal Setting/ Strategic Planning	C	O
Motivation Techniques	D	1
Leadership Style	C	O
Decision Making/ Problem Solving	B	-1
Control Systems	A	-2
Training	C	O
Sum Total Score for all Categories		-4

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Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   Middle Management_____   First Level Management__✓__

First Level Supervisor _____   Worker Level (non-supervisory)_____

ORGANIZATION _U.S. Air Force_

NAME- (Optional) _Phil Hicks_

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

1

Select the **ONE BEST** response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500>#employees>250	Medium Divisional / 500>#employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
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Motivation Techniques	Fear / No Motivation at all	Work Benefits / Working Conditions / Job Security	Financial Rewards / Management by objectives	Awards / Job Titles / Profit Sharing / Quality Circles	Recognition/Authority / Responsibility / Growth/Advancement / Gainsharing
Leadership Style	Authoritative / Production Only Oriented / Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative / People Oriented / Listens to Workers
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Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	A	-2
Access to Information	A	-2
Communications	B	-1
Reward System	B	-1
Goal Setting/ Strategic Planning	C	0
Motivation Techniques	B	-1
Leadership Style	A	-2
Decision Making/ Problem Solving	B	-1
Control Systems	A	-2
Training	B	-1
Sum Total Score for all Categories		-13

APPENDIX C

Data from Validation Study-Parker Hannifin

ASSESSMENT INSTRUMENT

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Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   **Middle Management**_✓_   **First Level Management**_____

First Level Supervisor _____   **Worker Level (non-supervisory)**_____

ORGANIZATION _Parker Hannifin_

NAME- (Optional)_____

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Select the **ONE BEST** response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy Large Matrix Large Functional # employees>500	Large Divisional # employees>500	Medium Matrix Medium Functional 500># employees>250	Medium Divisional 500># employees>250 *(circled)*	Small Small Divisional Team Based/Adhocracy # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information *(circled)*	Total access to information
Communication	Little/None Employees Kept in Dark	Mostly Formal Mostly Vertical Downward Directed Closed/Hidden Agenda Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal Mostly Horizontal Usually All Directional Usually Open/Honest Usually Loose Chain of command *(circled)*	Always Informal Always Horizontal All Directional Always Open/Honest Always Loose Chain of command
Reward System	None Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance Profit Sharing *(circled)*	Some team rewards and some individual rewards Risk Taking Tolerated	Teams rewarded for team/company success Innovation Rewarded Gainsharing
Goal Setting/ Strategic Planning	None Reactionary Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement *(circled)*	Goals/plans developed with some worker involvement	Team developed and implemented goals/plans
Motivation Techniques	Fear No Motivation at all	Work Benefits Working Conditions Job Security	Financial Rewards Management by objectives	Awards Job Titles Profit Sharing Quality Circles *(circled)*	Recognition/Authority Responsibility Growth/Advancement Gainsharing
Leadership Style	Authoritative Production Only Oriented Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations *(circled)*	Mgr Delegates Actions	Participative People Oriented Listens to Workers
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Training/ Education	None	Only Job Related Management Selected Training/education *(circled)*	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	+1 D	+1
Access to Information	+1 D	+1
Communications	+1 D	+1
Reward System	0 C	0
Goal Setting/ Strategic Planning	0 C	0
Motivation Techniques	+1 D	+1
Leadership Style	0 C	0
Decision Making/ Problem Solving	0 C	0
Control Systems	0 C	0
Training	-1 B	-1
Sum Total Score for all Categories		+3

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   **2=Agree**   **3=Neutral**   **4=Disagree**   **5=Strongly Disagree**

1. The Assessment was easy to understand and use.   1   2   ③   4   5

Comments:

2. How long did it take you to complete the assessment?   _10 min_

Comments:

3. The scoring system was easy to understand & calculate. 1   2   ③   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

Category descriptions are _not_ mutually exclusive. I would have preferred multiple choices on some.

4

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Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   **Middle Management**_✓_   **First Level Management**_____

First Level Supervisor _____   **Worker Level (non-supervisory)**_____

ORGANIZATION *Parker Hannifin – ICD*

NAME- (Optional)_____

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

1

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500 *(circled)*	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
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Control Systems	Policy Manuals / Rules & Regulations / Management implemented	Adheres to Plans & Budgets *(circled)*	Combination of controls listed	Total Quality Mgmt / Statistical Process Control	Peer/team based controls / Organizational values culture
Training/ Education	None	Only Job-Related / Management Selected Training/education	Manager & Worker Selected training/education *(circled)*	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	RESPONSE	SCORE
Organizational Structure	A	-1
Access to Information	D	1
Communications	D	1
Reward System	D	1
Goal Setting/ Strategic Planning	D	1
Motivation Techniques	D	1
Leadership Style	C	0
Decision Making/ Problem Solving	D	1
Control Systems	B	-1
Training	C	0
Sum Total Score for all Categories		4

3

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   **2=Agree**   **3=Neutral**   **4=Disagree**   **5=Strongly Disagree**

---

1. The Assessment was easy to understand and use.   1   (2)   3   4   5

Comments:

---

2. How long did it take you to complete the assessment?   _6 minutes_

Comments:

---

3. The scoring system was easy to understand & calculate.   1   (2)   3   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

4

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Upper Management_____ **Middle Management**__✓__ **First Level Management**__✗__

First Level Supervisor_____ **Worker Level (non-supervisory)**_____

ORGANIZATION _Parker Hannifin Corp_

NAME- (Optional) _Ron Harness_

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
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SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	RESPONSE	SCORE
Organizational Structure	C	0
Access to Information	B	-1
Communications	B	-1
Reward System	C	0
Goal Setting/ Strategic Planning	C	0
Motivation Techniques	D	+1
Leadership Style	B	-1
Decision Making/ Problem Solving	B	-1
Control Systems	B	-1
Training	B	-1
Sum Total Score for all Categories		-5

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   1   2   ③   4   5

Comments:

2. How long did it take you to complete the assessment?   15 min

Comments:

3. The scoring system was easy to understand & calculate. 1   2   ③   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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First Level Supervisor _____ **Worker Level (non-supervisory)**_____

ORGANIZATION___Parker___

NAME- (Optional)___Kim Stelzlrni___

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

1

Select the ONE BEST response for each category that best describes your organization.

	A	B	C	D	E
Organizational Structure	Bureaucracy Large Matrix Large Functional # employees>500	Large Divisional # employees>500 (circled)	Medium Matrix Medium Functional 500># employees>250	Medium Divisional 500># employees>250	Small Small Divisional Team Based/Adhocracy # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None Employees Kept in Dark	Mostly Formal Mostly Vertical Downward Directed Closed/Hidden Agenda Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal Mostly Horizontal Usually All Directional Usually Open/Honest Usually Loose Chain of command	Always Informal Always Horizontal All Directional Always Open/Honest Always Loose Chain of command
Reward System	None Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance Profit Sharing	Some team rewards and some individual rewards Risk Taking Tolerated	Teams rewarded for team/company success Innovation Rewarded Gainsharing
Goal Setting/ Strategic Planning	None Reactionary Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement	Team developed and implemented goals/plans
Motivation Techniques	Fear No Motivation at all	Work Benefits Working Conditions Job Security	Financial Rewards Management by objectives	Awards Job Titles Profit Sharing Quality Circles	Recognition/Authority Responsibility Growth/Advancement Gainsharing
Leadership Style	Authoritative Production Only Oriented Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative People Oriented Listens to Workers
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue	Mostly decentralized decision making/ problem solving	Local decisions/problems solving
Control Systems	Policy Manuals Rules & Regulations Management implemented	Adheres to Plans & Budgets	Combination of controls listed	Total Quality Mgmt Statistical Process Control	Peer/team based controls Organizational values culture
Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	RESPONSE	SCORE
Organizational Structure	B	- 1
Access to Information	D	+ 1
Communications	D	+ 1
Reward System	C	0
Goal Setting/ Strategic Planning	C	0
Motivation Techniques	D	+ 1
Leadership Style	C	0
Decision Making/ Problem Solving	D	+ 1
Control Systems	B	- 1
Training	C	0
Sum Total Score for all Categories		2

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   1   (2)   3   4   5

Comments:

2. How long did it take you to complete the assessment?   _15 min._

Comments:

3. The scoring system was easy to understand & calculate. 1   (2)   3   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

ASSESSMENT INSTRUMENT

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Select the **ONE BEST** answer (A, B, C, D, E) for the 10 Categories listed on page 2 which best describes your organization. All of the comments for a given response are not required in order for selection.

Place all of your responses on the Scoring sheet on page 3 after completing the assessment and follow the scoring directions.

Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   **Middle Management**__✓__   **First Level Management**_____

First Level Supervisor _____   **Worker Level (non-supervisory)**_____

ORGANIZATION PARKER

NAME- (Optional) RICH SACHWITZ

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None / Employees Kept in Dark	Mostly Formal / Mostly Vertical / Downward Directed / Closed/Hidden Agenda / Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal / Mostly Horizontal / Usually All Directional / Usually Open/Honest / Usually Loose Chain of command	Always Informal / Always Horizontal / All Directional / Always Open/Honest / Always Loose Chain of command
Reward System	None / Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance / Profit Sharing	Some team rewards and some individual rewards / Risk Taking Tolerated	Teams rewarded for team/company success / Innovation Rewarded / Gainsharing
Goal Setting/ Strategic Planning	None / Reactionary / Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement	Team developed and implemented goals/plans
Motivation Techniques	Fear / No Motivation at all	Work Benefits / Working Conditions / Job Security	Financial Rewards / Management by objectives	Awards / Job Titles / Profit Sharing / Quality Circles	Recognition/Authority / Responsibility / Growth/Advancement / Gainsharing
Leadership Style	Authoritative / Production Only Oriented / Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative / People Oriented / Listens to Workers
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Training/ Education	None	Only Job Related / Management Selected / Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related / Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	D	+1
Access to Information	C	0
Communications	C	0
Reward System	C	0
Goal Setting/ Strategic Planning	D	+1
Motivation Techniques	D	+1
Leadership Style	B	-1
Decision Making/ Problem Solving	D	+1
Control Systems	C	0
Training	C	0
Sum Total Score for all Categories		4

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   1   (2)   3   4   5

Comments:

2. How long did it take you to complete the assessment?   10 hins

Comments:

3. The scoring system was easy to understand & calculate. 1   (2)   3   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

UNDER LEADERSHIP STYLE ARE B AND
D SWITCHED.

GOOD LUCK W/ YOUR CAPSTONE

ASSESSMENT INSTRUMENT

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Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____ **Middle Management**__✓__ **First Level Management**_____

First Level Supervisor_____   **Worker Level (non-supervisory)**_____

ORGANIZATION_Parker Hannifin Corporation_____

NAME- (Optional)_____

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees>250
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Training/ Education	None	Only Job Related / Management Selected / Training/education	Manager & Worker Selected training/education	Some non-direct job related / Worker & Mgr Selected / training/education	Non-Direct Job Related / Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	A	-2
Access to Information	A	-2
Communications	C	0
Reward System	C	0
Goal Setting/ Strategic Planning	D	+1
Motivation Techniques	D	+1
Leadership Style	D	+1
Decision Making/ Problem Solving	D	+1
Control Systems	C	0
Training	C	0
Sum Total Score for all Categories		0

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   1   (2)   3   4   5

Comments:

2. How long did it take you to complete the assessment?   _5 minutes_

Comments:

3. The scoring system was easy to understand & calculate. 1   (2)   3   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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Finally, please answer the short questions at the end of this Assessment to provide feedback and comments regarding the Assessment Instrument.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____ **Middle Management**_____ **First Level Management** _X_

First Level Supervisor _____ **Worker Level (non-supervisory)**_____

ORGANIZATION_ PARKER-HANNIFIN CORP _

NAME- (Optional)_ FRED ZIKAS _

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

1

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy Large Matrix Large Functional # employees>500	Large Divisional # employees>500	Medium Matrix Medium Functional 500># employees>250	Medium Divisional 500># employees>250	Small Small Divisional Team Based/Adhocracy # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
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Motivation Techniques	Fear No Motivation at all	Work Benefits Working Conditions Job Security	Financial Rewards Management by objectives	Awards Job Titles Profit Sharing Quality Circles	Recognition/Authority Responsibility Growth/Advancement Gainsharing
Leadership Style	Authoritative Production Only Oriented Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative People Oriented Listens to Workers
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Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	C	0
Access to Information	D	1
Communications	C	0
Reward System	C	0
Goal Setting/ Strategic Planning	D	1
Motivation Techniques	B	−1
Leadership Style	B	−1
Decision Making/ Problem Solving	C	0
Control Systems	C	0
Training	C	0
Sum Total Score for all Categories		0

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   1   2   3   ④   5

Comments:

NOT ENOUGH CATEGORIES

2. How long did it take you to complete the assessment?   7 min.

Comments:

3. The scoring system was easy to understand & calculate. 1   2   ③   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____   **Middle Management** _X_   **First Level Management**_____

First Level Supervisor _____   **Worker Level (non-supervisory)**_____

ORGANIZATION *Parker Hannifin*

NAME- (Optional) *Rodney Boone*

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

1

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
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Training/ Education	None	Only Job Related / Management Selected Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	RESPONSE	SCORE
Organizational Structure	D	+1
Access to Information	D	+1
Communications	D	+1
Reward System	C	0
Goal Setting/ Strategic Planning	D	+1
Motivation Techniques	D	+1
Leadership Style	D E	+2
Decision Making/ Problem Solving	C	0
Control Systems	A	-2
Training	B	-1
Sum Total Score for all Categories		4

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

---

1. The Assessment was easy to understand and use.   ①   2   3   4   5

Comments:

---

2. How long did it take you to complete the assessment?   _5 min._

Comments:

---

3. The scoring system was easy to understand & calculate.   1   ②   3   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

4

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Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____ **Middle Management**_____ **First Level Management** X

First Level Supervisor_____ **Worker Level (non-supervisory)**_____

ORGANIZATION_____Parker Hannifin_____

NAME- (Optional)_____

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1

Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500 **(circled)**	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250 **(circled)**	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Access to Information	Restricted access to information **(circled)**	Minimal access to information	Some access to information	Access to most information **(circled)**	Total access to information
Communication	Little/None / Employees Kept in Dark	Mostly Formal / Mostly Vertical / Downward Directed / Closed/Hidden Agenda / Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal / Mostly Horizontal / Usually All Directional / Usually Open/Honest / Usually Loose Chain of command **(circled)**	Always Informal / Always Horizontal / All Directional / Always Open/Honest / Always Loose Chain of command
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Goal Setting/ Strategic Planning	None / Reactionary / Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement **(circled)**	Team developed and implemented goals/plans
Motivation Techniques	Fear / No Motivation at all	Work Benefits / Working Conditions / Job Security	Financial Rewards / Management by objectives	Awards / Job Titles / Profit Sharing / Quality Circles **(circled)**	Recognition/Authority / Responsibility / Growth/Advancement / Gainsharing
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SCORING SYSTEM:

Part II

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

I assume "A" is Excellent and "E" is Failure in assessing each category? you need to be more clear with the instructions.

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure	B̶ D̶	-1̶ +1.
Access to Information	B̶ D	-1̶ +1.
Communications	B̶ D	-1̶ +1
Reward System	C̶ D	0̶ +1.
Goal Setting/ Strategic Planning	C̶ D	0̶ +1
Motivation Techniques	B̶ D	-1̶ +1.
Leadership Style	B̶ C	-1̶ 0
Decision Making/ Problem Solving	B̶ C̶ D	0̶ +1.
Control Systems ?	B̶ C̶ C	0̶ 0
Training	B̶ D	-1̶ +1
Sum Total Score for all Categories		-6̶ 8

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   **2=Agree**   **3=Neutral**   **4=Disagree**   **5=Strongly Disagree**

1. The Assessment was easy to understand and use.   **1**   **2**   **(3)**   **4**   **5**

    (overall)

    Comments: Part I   O

                          Part II   O

2. How long did it take you to complete the assessment?   ~ 10 min.

    Comments:

3. The scoring system was easy to understand & calculate. **1**   **2**   **(3)**   **4**   **5**

    (overall)   Part I   O

    Comments: Part II   O

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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Select the **ONE BEST** response to describe your position in the organization below:

Upper Management ✗   **Middle Management** ✓   **First Level Management**_____

First Level Supervisor _____   **Worker Level (non-supervisory)**_____

ORGANIZATION _Parker Hannifin_

NAME- (Optional)_____

Your time and effort in this project is greatly appreciated. If you have any questions, please contact Frank Miyagawa, (205) 837-1038, fmiyagawa@aol.com.

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Select the ONE BEST response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None / Employees Kept in Dark	Mostly Formal / Mostly Vertical / Downward Directed / Closed/Hidden Agenda / Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal / Mostly Horizontal / Usually All Directional / Usually Open/Honest / Usually Loose Chain of command	Always Informal / Always Horizontal / All Directional / Always Open/Honest / Always Loose Chain of command
Reward System	None / Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance / Profit Sharing	Some team rewards and some individual rewards / Risk Taking Tolerated	Teams rewarded for team/company success / Innovation Rewarded / Gainsharing
Goal Setting/ Strategic Planning	None / Reactionary / Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement	Team developed and implemented goals/plans
Motivation Techniques	Fear / No Motivation at all	Work Benefits / Working Conditions / Job Security	Financial Rewards / Management by objectives	Awards / Job Titles / Profit Sharing / Quality Circles	Recognition/Authority / Responsibility / Growth/Advancement / Gainsharing
Leadership Style	Authoritative / Production Only Oriented / Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative / People Oriented / Listens to Workers
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue	Mostly decentralized decision making/ problem solving	Local decisions/problems solving
Control Systems	Policy Manuals / Rules & Regulations / Management implemented	Adheres to Plans & Budgets	Combination of controls listed	Total Quality Mgmt / Statistical Process Control	Peer/team based controls / Organizational values culture
Training/ Education	None	Only Job Related / Management Selected / Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related / Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	RESPONSE	SCORE
Organizational Structure	B	−1
Access to Information	D	+1
Communications	E	+2
Reward System	D	+1
Goal Setting/ Strategic Planning	D	+1
Motivation Techniques	D	+1
Leadership Style	E	+2
Decision Making/ Problem Solving	D	+1
Control Systems	C	0
Training	D	+1
Sum Total Score for all Categories		+9

FEEDBACK

Please answer the following questions regarding the Assessment Instrument.

1=Strongly Agree   2=Agree   3=Neutral   4=Disagree   5=Strongly Disagree

1. The Assessment was easy to understand and use.   (1)   2   3   4   5

Comments:

2. How long did it take you to complete the assessment?   _5   Minutes_

Comments:

3. The scoring system was easy to understand & calculate (1)   2   3   4   5

Comments:

Please provide any other appropriate comments regarding the assessment instrument.
OVERALL COMMENTS

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APPENDIX D

Final Assessment Instrument

Instructions

Interpretation of results

ASSESSMENT INSTRUMENT

ACADEMIC DISCLAIMER:

The following Assessment Instrument will be used strictly for academic purposes. All results will be kept strictly confidential.

PURPOSE:

This Assessment Instrument is designed to evaluate an organization in 10 different categories to determine areas needing improvement and the overall working conditions of the organization.

INSTRUCTIONS:

Select the **ONE BEST** answer (A, B, C, D, E) for the 10 Categories listed on page 2 which best describes your organization. All of the comments for a given response are not required in order for selection.

Place all of your responses on the Scoring sheet on page 3 after completing the assessment and follow the scoring directions.

Select the **ONE BEST** response to describe your position in the organization below:

Upper Management_____ Middle Management_____ First Level Management_____

First Level Supervisor _____Worker Level (Non supervisory)_____

ORGANIZATION_____

NAME-
(Optional)_____

Your time and effort in this project is greatly appreciated.

Select the **ONE BEST** response for each category that best describes your organization.

Category	A	B	C	D	E
Organizational Structure	Bureaucracy / Large Matrix / Large Functional / # employees>500	Large Divisional / # employees>500	Medium Matrix / Medium Functional / 500># employees>250	Medium Divisional / 500># employees>250	Small / Small Divisional / Team Based/Adhocracy / # employees<250
Access to Information	Restricted access to information	Minimal access to information	Some access to information	Access to most information	Total access to information
Communication	Little/None / Employees Kept in Dark	Mostly Formal / Mostly Vertical / Downward Directed / Closed/Hidden Agenda / Rigid Chain of Command	Sometimes formal/informal depending on situation	Mostly Informal / Mostly Horizontal / Usually All Directional / Usually Open/Honest / Usually Loose Chain of command	Always Informal / Always Horizontal / All Directional / Always Open/Honest / Always Loose Chain of command
Reward System	None / Punish for Risk Taking	Individual rewards for individual performance	Individual rewards for team/company performance / Profit Sharing	Some team rewards and some individual rewards / Risk Taking Tolerated	Teams rewarded for team/company success / Innovation Rewarded / Gainsharing
Goal Setting/ Strategic Planning	None / Reactionary / Day to Day	All goals/plans issued from top management with no worker involvement	Most goals/plans issued from top management with little/no worker involvement	Goals/plans developed with some worker involvement	Team developed and implemented goals/plans
Motivation Techniques	Fear / No Motivation at all	Work Benefits / Working Conditions / Job Security	Financial Rewards / Management by objectives	Awards / Job Titles / Profit Sharing / Quality Circles	Recognition/Authority / Responsibility / Growth/Advancement / Gainsharing
Leadership Style	Authoritative / Production Only Oriented / Mgr Directs Actions	Mgr sells tasks to workers	Situational-different Styles for various situations	Mgr Delegates Actions	Participative / People Oriented / Listens to Workers
Decision Making Problem Solving	All decisions/ problems solved at top	Mostly centralized decision making/ problem solving	Some centralized & some decentralized depending on issue	Mostly decentralized decision making/problem solving	Local decisions/problems solving
Control Systems	Policy Manuals / Rules & Regulations / Management implemented	Adheres to Plans & Budgets	Combination of controls listed	Total Quality Mgmt / Statistical Process Control	Peer/team based controls / Organizational values / Culture
Training/ Education	None	Only Job Related Management Selected Training/education	Manager & Worker Selected training/education	Some non-direct job related Worker & Mgr Selected training/education	Non-Direct Job Related Employee Selected training/education

SCORING SYSTEM:

Place your response for each Category in the table below. Place the appropriate score for each response in the Score column for each category and then total the overall score by summing the 10 individual Category scores.

Assessment Instrument Results & Score

Scoring System: A= (-2) B= (-1) C= (0) D= (+1) E= (+2)		
CATEGORY	**RESPONSE**	**SCORE**
Organizational Structure		
Access to Information		
Communications		
Reward System		
Goal Setting/ Strategic Planning		
Motivation Techniques		
Leadership Style		
Decision Making/ Problem Solving		
Control Systems		
Training		
Sum Total Score for all Categories		

INTERPRETATION OF RESULTS

1. Look at the overall total score for the organization. A negative score indicates the organization tends to be "Mechanistic". The more negative the score the more "Mechanistic". A positive score indicates the organization tends to be "Organic. The more positive the score, the more "Organic" the organization is. A score near zero indicates either the organization does not tend towards either organic or mechanistic or that the organization has equal amounts of organic and mechanistic tendencies.

2. Look at the individual 10 categories. Rank order the categories form most negative score (Mechanistic) to most positive score (Organic). Focus efforts on the most mechanistic characteristics and move towards the organic characteristics.

3. Look at the results by the different management levels within the organization to determine if there are significant differences by work level. Any differences could point towards problems.

4. Review score results and discuss problem areas with workers.

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